Epilim® Chrono: Sodium valproate slow released film-coated tablet

**Indications:** Treatment of generalized, partial or other epilepsy. Treatment of manic episodes for maintenance and prophylactic treatment of bipolar disease in patients not responding to or tolerating lithium.

**Dosage:** Epilim® Chrono can be given once daily. **Epilepsy:** Adult dosage starts at 600mg/d increasing by 200mg at 3-day intervals until controlled. Generally the dosage is 20-30mg/kg/d, may further increase to 2500mg/d. Children over 20kg dosage starts at 400mg/d with spaced increases until controlled. Usually the range is 20-30 mg/kg/d, may increase to 35mg/kg/d. If combined therapy with hepatic enzyme induced anticonvulsants, it may be necessary to increase the sodium valproate dose by 5-10mg/kg/d. In patients with renal insufficiency, dosage should be reduced according to clinical monitoring. **Mania:** Recommended maintenance dosage is 500 - 2000mg/d divided in 1 or 2 doses, may be increased to not more than 3000mg/day. Individual dosage depends on the clinical effect, but plasma levels of 50 - 125 microgram/ml should be aimed at. In prophylactic treatment the lowest possible dose should be given.

**Contraindications:** Acute liver disease; personal or family history of severe hepatic dysfunction, especially drug related; hypersensitivity to sodium valproate; porphyria. **Precautions:** Patients taken multiple anticonvulsants, children under 3, those with severe seizure disorders, organic brain disease, congenital metabolic or degenerative disease associated with mental retardation are at risk of severe liver damage. Monitoring of liver function should be measured during the first 8 months of therapy. Young children are at particular risk of pancreatitis. Blood tests are recommended before therapy initiation or surgery. Pregnancy & lactation. **Drug Interaction:** Neuroleptics, MAOI, antidepressants, benzodiazepines, phenobarbital, primidone, phenytoin, carbamazepine, lamotrigine, zidovudine, anticoagulant, felbamate, mefloquine, chloroquine, cholestyramine. **Undesirable effects:** GI disorders, hyperammonaemia, thrombocytopenia. **Preparations:** 200mg x 100’s, 300mg x 100’s, 500mg x 100’s. **Other Epilim® presentations available:** Epilim® Crushable 100mg tablet; Epilim® Enteric coated 200mg tablet; Epilim® Liquid 200mg/5ml; Epilim® IV 400mg/vial. **Full prescribing information is available upon request.**

API-HK-VPA-05.03
The Cover Shot

This was taken in Inner Mongolia, 2007 when I was the photographic instructor on a photographic expedition leading a group of 17.

I came across this forest of ageing and dying trees, each being over thousand years old. In the dusk, under the evening light, they shed their frailty and undergo resurrection. This fellow with growing horns has a rather aggressive stance, ready to attack me as I was photographing alone. His appearance was certainly imposing if not horrifying. It was a rather unnerving and haunting moment which I have captured on camera to share with you all. More of this series of photos can be found in www.amypang.net.

Dr. Amy PANG
MBBS(HK), FCR, FHKCR, FHKAM(Radiology)
Specialist in Radiology
The bio-psycho-social approach is a standard three-pronged approach to manage patients with mental health problems. Psychiatrists, being experts in psychopharmacology, also make use of psychological intervention frequently in our everyday practice. In the past, the neurophysiological mechanism of psychological treatment and how it worked remained a mystery to many of us, including lay people and medical practitioners. However, advancement in other scientific fields like genetics, molecular science and radiology have helped us in a better understanding of our psychological intervention. In this issue, Dr L Chiu and I have written on Hypnotherapy and Eye Movement Desensitization & Reprocessing Therapy (EMDR) respectively. These are psychotherapy techniques not uncommonly used in clinical practice. Some of their mysteries have been revealed by modern technology recently. Functional MRI studies with patients under hypnosis have shown results that "illuminate how suggestion affects cognitive control by modulating activity in specific brain areas."1 SPECT Studies of PTSD patients receiving EMDR also demonstrate related changes in metabolism in anterior cingulate and prefrontal region.

Dr TS Lai & Dr. SM Lam have written a case report on quetiapine-induced neuroleptic malignant syndrome which helps to increase our awareness on this rare but potentially lethal adverse effect of antipsychotics. Dr WK Lam’s article on psychogeriatric day hospital is also timely as the number of elderly patients with mental health problems is on the rising trend and psychogeriatric day hospital referral should be included as one of the choices in our management plan. Dr MT Wong has summarised the recent findings on some interesting topics in “the sick brain” symposium. Dr HW Lee has written on child education “Building a Beautiful Mind for Children” - an article that I think should be enjoyed by all parents or parents-to-be. Last, but certainly not the least, Dr Greg Mak, a colleague famous for his cooking techniques, has written on how to cook - If Mak can cook, you can (if you follow his instructions). I hope readers can enjoy this issue as it contains interesting materials in different aspects of psychiatry (and life), child education as well as cooking - all are important elements in our medical career and indeed our personal life.

References
Master of Medical Sciences (MMedSc)

- Provide structured training in both basic science and clinical disciplines for career or personal development
- Provide a bridging mechanism for preclinical and clinical studies

Curriculum
1-year full-time or 2-year part-time (day-release)
- Induction Course on Dissertation Writing (7.5 hours)
- 4 Core Modules (80 hours)
- 6 Specialised Modules (120 hours)
- Research project leading to a dissertation (200 hours)

Those who wish to enhance their professional knowledge but do not intend to pursue the MMedSc qualification may take individual Core or Specialised Modules and receive a Certificate of Attendance.

Admission requirements
a. Possess the relevant necessary requirements which comply with the General Regulations;
b. Hold a Bachelor’s degree with honours or the degrees of MBBS of this University, or another qualification of equivalent standard;
c. Obtain a score of 550 or above (paper-based test), 213 or above (computer-based test) or 80 or above (internet-based test) in the Test of English as a Foreign Language (TOEFL) if seeking admission on the basis of a qualification from a university of which the language of teaching and/or examination is not English. Those taking IELTS should have a minimum overall band of 6 with no subtest lower than 5.5; and
d. Satisfy the examiners in a qualifying examination, if required.

Course commencement: September 2009
Provisional Course fees (subject to adjustment):
HK$92,000 (1-year Full-time); HK$46,000/year (2-year Part-time)
Application Deadline: May 31, 2009

Application forms and details of the curriculum can be found at http://www.hku.hk/facmed/03edu_post_taught.htm

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Introduction

In the 19th century, hypnotherapy was a distinct mode of treatment. Currently, hypnosis is seen as a technique to deliver psychological treatment rather as a distinct form of treatment. Cognitive therapy, psychodynamic psychotherapy, Gestalt’s therapy and other forms of psychotherapy can be more effectively delivered in the trance state. As such, it should be practised only by professionals who have the appropriate training and qualifications to provide the treatment that is being augmented by hypnosis.

Definition of Hypnosis

In contemporary days, there is no uniquely agreed definition of hypnosis. On review of various definitions of hypnosis, some typical suggestions are found such as:

1. Hypnosis is guided imagination. The hypnotist or patient (self-hypnosis) acts as a guide for an experience regarded as fantasy (Barber, 1979; Barber, Spanos & Chaves, 1974).

2. Hypnosis is a natural, altered state of consciousness. The person enters a hypnotic state, a state distinctly different from the person’s "normal" state, through a natural process not involving ingestion of any substances or other physical treatments. (Ludwig, 1966; Ludwig & Levine, 1965; Tart, 1969) (American Psychological Association Division of Psychological Hypnosis, 1985; James, 1890)

3. Hypnosis is a relaxed, hypersuggestible state. The person enters a very relaxed state of kind and body, and subsequently is more responsive to suggestion. (Edmonston, 1991; Miller, 1979).

4. Hypnosis is a state of intense concentration, focusing and maximising involvement with one idea or sensory stimulus at a time (Spiegel & Spiegel, 1987). (McConkey, 1986)

5. Hypnosis is a situation or set of procedures in which a person designated as the hypnotist suggests that another person designated as the patient, client, or subject experiencing various changes in sensation, perception, cognition, or control over motor behaviour (cf. Kihlstrom, 1985).

The Application of Hypnosis in the Management of Medical and Psychiatric Problems

The main advantage of using hypnosis in psychotherapy lies in its ability to relax the patient and access the subconscious mind of the individual. The therapist can then draw upon the resources of the client's subconscious mind, including feeling, values, behaviours, memories, understandings and perceptions. The most superficial and least sophisticated use of hypnosis involves simply inducing hypnosis formally and then giving suggestions directly related to the problem. This kind of hypnosis is used on a symptomatic basis. Despite its superficiality, it can still be effective with a considerable percentage of individuals with uncomplicated problems.

However, for patients presenting with refractory problems like chronic depression not responding to conventional treatment, more complex and skilled use of hypnosis involves the use of techniques aimed at resolution of deeper conflicts. This kind of hypnosis involves more of an interactional approach and works on multiple dimensions of the individual, not just on the most superficial ones. In such cases, more advanced techniques like abreaction, age progression, hypnoanalysis, cognitive reframing and metaphor will be employed.

For all patients presenting with psychiatric or psychological problems, a formal detailed assessment must be made, as in conventional treatment. Clinicians should judge which is the best treatment modality for the patient. Medications should not be withheld if medication is considered to be the quickest and most effective mode of treatment. For some patients, a combination of medication and hypnosis works well.

Anxiety Disorders (Anxiety, Stress, Phobias, Post-traumatic Stress Disorder)

Most of the uncomplicated cases of anxiety disorders respond well to relaxation brought about by hypnosis. Response can be augmented by teaching the patients self hypnosis. Teaching patients the skill of self-hypnosis can help them build relaxation skills and a sense of self control. Simply knowing one have the ability to relax deeply and reorganise his thoughts, feelings, and behaviours can have a powerful effect in helping one manage his stress and anxiety. The use of cognitive therapy in hypnosis can facilitate the
understanding that the stress often arises from the client's interpretation of events, not just in the events themselves, patients can be helped to have alternate perspectives and thus alternate responses. (Bandler, 1985; Brown & Fromm, 1987; Crawford & Barabasz, 1993; Habeck & Sheikh, 1984; Spiegel, 1993a; Yapko, 1989).

**Depression**

Depression is a very complex multidimensional problem. Assessment should include the patient's relationship problems, cognitive distortions, faulty attributions, and coping strategy. For patients not responding well, more in depth exploration including hypnoanalyses using techniques such as affect bridge can be done in hypnosis. Hypnosis may be used superficially to soothe anxiety, increase responsiveness, enhance concentration and improve interaction with others. It may be combined with cognitive therapy to facilitate flexibility in rigid, distorted patterns of thinking or interpreting events, reframe meanings attached to experiences rooted in faulty belief systems, and build positive frames of reference for responding to life from a more effective framework. (Burrows, 1980; Havens & Walters, 1989; Havens, 1986; Miller, 1984; Torem, 1992; Yapko, 1988, 1989, 1992a, 1992b). In the last decade, emphasis has been focused on ego strengthening and improving of current life quality. This involves using hypnosis to activate past successful and pleasant memories, nurturing techniques and dissociated recall of past traumatic events.

**Self-esteem Problems**

Patients with depression often present with low self-esteem as part of their clinical picture. Ego strengthening suggestions are given to the patients. For individual patients whose defective cognition can be identified, cognitive restructuring can be taught under hypnosis.

Metaphor can be engaged in these situations, therapist can relate to the patients how the person in the metaphor experienced the same or structurally similar problems, how he or she handled it, and what the consequences were. Through a therapeutic metaphor, the patient can acquire learning that has a greater impact than does simply stating his problem. The metaphor can match to whatever degree the clinician desires the patient's frame of reference, feelings, level of experience, and unconscious dynamics. Once identification is built through such matching, the therapeutic metaphor can go on to suggest solutions, encourage actions, and embed suggestions (Alman & Lambrou, 1992; Hammond, 1990; Lankton & Lankton, 1988; McNeal & Frederick, 1993).

**Relationship Problems (Couples, Families)**

Relationship problems are commonly encountered problems in depressed and anxious patients. The problems may be secondary to their psychiatric condition or more often contributing to their problems. Most often, the individuals in a relationship have problematic communication skills, ill-defined or inappropriate expectations, poor self-esteem, and fears of intimacy or commitment. Communication pattern most commonly identified include lack of communication and turning away from each other. Hypnotic strategies may be employed to clarify expectations, increase the level of motivation to resolve differences within the relationship, enhance communication skills, and resolve unconscious conflicts about intimacy and commitment. Metaphorical approaches, symptom prescription, and reframing are effective patterns to use in relationship counselling. Age regression is a good strategy to use in working individually with someone who experiences relationship problems, building in the resources necessary to effectively relate to another person. On the other hand, age progression helps clients to form an image of the ideal situation in the future and which acts as a goal for the client to move forward. (Haley, 1973; Kershaw, 1992; Lankton & Lankton, 1986; Protinsky, 1988; Ritterman, 1983, 1985).

**Multiple Personality Disorder (MPD)**

Hypnosis is used to explore the range and quality of the client's dissociations, to reframe trauma, to "work through" traumatic memories, to facilitate reintegration dissociated and conflicted aspects of self, and to address related symptoms (Bliss, 1986; Braun, 1986; Horevitz, 1993; Kluft, 1985; Kluft & Fine, 1993; Putnam, 1989; Ross, 1989).

**Pain and Medical Problems**

Hypnosis is effective in reducing pain, whether the pain is acute or chronic, from a known organic disease or injury or perhaps psychogenic source. Techniques employed including creating anaesthesia or analgesia, substitution of pain by a different less painful sensation; displacement of the location of pain and dissociation of awareness (Brown & Fromm, 1987; Chaves, 1993; Erickson, 1959, 1966; Hammond, 1990; Hilgard & Hilgard, 1994; Spanos & Chaves, 1989).

Apart from pain, hypnosis has been applied successfully in the treatment of a wide variety of medical problems, including burns, cancer, asthma, allergies, tinnitus, hypertension, warts and almost any other medical problem one can think of.

**Sexual Dysfunctions**

As in the treatment of anxiety disorders, teaching self-hypnosis to help patients master the anxiety allows the relaxation to generalise to the context where they would like to have it.

Use of age progressing technique for the patient to see himself or herself sexually active and satisfied is yet another potential application of hypnosis. Hypnosis and sex therapy are two highly compatible and easily integrated approaches to the treatment of sexual dysfunctions (Araoz, 1982, 1984; Crasilneck, 1982, 1990; Erickson, 1973; Hammond, 1990; Zeig, 1980).

**Weight Control (Smoking, Alcohol, Drugs)**

Obesity appears to result from an addiction similar to drug dependence and smoking. Stunkard and McLaren-Hume (1959) discovered that only 5% of obese patients lose weight without relapsing. The result of hypnosis using direct suggestions revealed no difference from nonhypnotic treatment. (Wadden & Anderton, 1982)

For more successful results, hypnotic strategies for subconscious exploration and internal conflict resolution with suggestive hypnosis may be required.

Ego strengthening, relaxations, age progression to see ideal self which acts as a goal to move forward are
techniques employed commonly. Craving so commonly associated with obesity can be treated with suggestions that reframe cravings and post hypnotic suggestions to facilitate positive self talk.

**Side Effects of Hypnosis**

Most patients find hypnosis as a positive, satisfying, and relaxing experience (Lynn et al., 1991) A small fraction of patients experience negative effects after hypnosis. The lack of association with hypnotisability, along with the finding that these effects are equally likely following ordinary nonhypnotic procedures, suggests that they are not produced by or limited to hypnosis. However, the timing of their occurrence may lead patients and therapists to misattribute them to hypnosis. Most of these aftereffects are transitory, although some last longer than 1 hour. The most commonly reported aftereffects are physical complaints (e.g., headaches, dizziness, drowsiness, nausea), anxiety, and cognitive distortions such as confusion, disorientation, and distortion of perceptions. More difficult or personally meaningful tasks, such as asking patients to age regress during hypnosis, may be associated with a higher incidence of reported negative effects.

**Client Characteristics**

Several authors (Kleinhaus et al., 1979; MacHovec, 1986) have argued that possible hazards of hypnosis are attributable largely to personality or attitudinal factors residing within the patients. Complications have been reported in borderline psychotic patients who decompensate during hypnosis (Gill & Brenman, 1959) and paranoid patients who experience an intensification of hostile feelings about being controlled following hypnosis (Rosen, 1960; Speigel, 1978).

**Hypnotist Characteristics**

Kost (1965) and Fromm (1980) opined that side effects attributable to the attitude of the therapist. Kost cited the therapist’s ignorance, overzealousness, and a lack of understanding of interpersonal relationships as contributing factors towards side effects of hypnosis. While Fromm stated that an authoritarian, coercive, or omnipotent stance towards the patient is likely to result in negative reactions. By contrast, a permissive, respectful, and collaborative approach is unlikely to encounter complications.

**Hypnotic Hazards and Ethical Guidelines**

**Spontaneous Regression and Abreaction**

Regression is the experience of repressed past experiences in conscious mind. Abreaction is the expression of pent-up emotions. Regression and abreaction may take place spontaneously sometimes when the therapist is giving general relaxation procedure or direct relaxation suggestions. A patient may flash on some words or images that the therapist uses that is associated to an emotionally charged memory, experiencing the memory and bringing up feelings of intense emotion. In that cases, deal with the client’s problems even when the session is near to its end. Allow the abreaction, and be helpful to the client in helping him or her reach a new perspective on the experience.

**Pseudomemories**

Indeed, therapists need to exercise vigilance to avoid inadvertently administering suggestions that produce or legitimise pseudomemories. It is essential that therapists evaluate the credibility of alleged repressed memories uncovered during therapy in light of the client’s hypnotisability and the nature of the procedures used to uncover the memories.

**Ethical Guidelines**

1. The number one priority is to help and treat the patient.

2. Hypnotic phenomena often appear dramatically to the outsiders. It is ethical that hypnosis be demonstrated only for clinical or educational purpose.

3. Goals and progress should be discussed with the patient before the start of treatment. The nature of hypnosis, the target for each session, the duration and frequency of treatment, the cost and the expectations should be agreed upon before commencing treatment. Involving and educating the patient will allay fears associated with misconceptions about hypnosis commonly found in the average individual and improve the rapport with the patient contributes more to the success of the treatment.

4. Do not go beyond one’s range of expertise. Treatment should be confined to problems which one can treat without the use of hypnosis. Using hypnotic techniques without adequate knowledge is potentially dangerous, and damaging someone through ignorance is unforgivable (Frauman, Lynn & Brentar, 1993; Gravitz, Mallet, Munyon & Gerton, 1982; Sheehan & McConkey, 1993; Steere, 1984; Wall, 1991; Zeig, 1985). If the therapists feel that they are not competent when presented with a problem, the patient should be referred to someone better able to meet his or her needs.

**Conclusion**

Hypnosis should not be considered as a distinct school of therapy but a technique that can be used within the larger context of treatment in order to facilitate the therapeutic process (e.g., Gill & Brenman, 1961; Moll, 1889/1958; Weitzenhoffer, 1957). As a result, hypnosis can be used by practitioners of diverse theoretical orientations, from psychoanalytic to behavioural; from individual to group to family; and can be used to treat a broad range of conditions. Yet, as there is the possibility of spontaneous regression and abreaction, therapists should be prepared for it and have adequate training to deal with it. In addition, it should be used with the understanding that some patients show “resistance” in not going into trance, which in fact reflects modification is needed in the therapist’s approach instead of blaming the patient being uncooperative.
References


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References:
2. Sacks G et al. Psychopharmacol 2006; 20:536-546

Further information is available on request:

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ABILIFY (aripiprazole) 5, 10, 15mg tablets
Introduction

Traumatic experience and natural disasters are sometimes an unavoidable tragedy in human life. In the past, many psychological interventions were proposed for treating not only patients suffering from Post-traumatic Stress Disorder (PTSD) but also for people who had been exposed to a traumatic event. These included post-incident psychological debriefing, Cognitive Behaviour Therapy (CBT) & other counselling techniques. In their Cochrane review, Rose et al pointed out that there was no evidence for the efficacy of one-session psychological debriefing provided soon after exposure to potentially traumatising event and that "compulsory debriefing of victims of trauma should cease" as post-incident debriefing may do more harm than good to people exposed to potentially traumatising event. For those people who suffer from PTSD, CBT, according to clinical experience, tends to take quite a long time (in terms of months to years) to take effect. In the past 20 years there have been marked progress on the understanding and management of PTSD. One of the most significant changes is on the psychological treatment of PTSD.

Eye Movement Desensitization & Reprocessing Therapy (EMDR) is a new psychological intervention for PTSD. It is a psychological treatment that integrates psychodynamic, cognitive, behavioural techniques and was discovered by Dr. Francine Shapiro in 1987 by serendipity. So far, over one million people have received EMDR in the world.

Theoretical Basis

The theoretical basis of EMDR is that when we encounter a traumatic event, the “bad” experience will be locked up in our brain. We need to unlock this bad memory so that we can reinterpret & reprocess it in a healthy way. EMDR facilitates the accessing and processing of traumatic memories to bring these to an adaptive resolution. Studies have shown that EMDR can reduce the strength of hippocampally mediated episodic memories of the traumatic event and the memory associated, amygdala-mediated negative effect.

Standard Format of EMDR

The eight stages of a typical EMDR session are shown in Figure 1. During the therapy, the patient is asked to follow the therapist's instruction and do therapist-directed conjugated lateral eye movements. At the same time, the patient should attend to emotionally disturbing materials in brief sequential doses while simultaneously having the eye movements. Each session typically lasts for about ninety minutes.

SPECT Studies

SPECT study of Pre and Post-EMDR for six PTSD subjects who had each received three EMDR sessions showed the following findings:

- increase in bilateral activity of the anterior cingulate (cingulate moderates the experience of real versus perceived threat, indicating that after EMDR, PTSD sufferers may be less hypervigilant)
- increase in pre-frontal lobe metabolism (indicating improvement in the ability to reason or make sense of incoming sensory stimulation.)

Eight stages of EMDR

- History
- Preparation
- Target Assessment
- Desensitisation
- Installation
- Body Scan
- Closure
- Re-evaluation

Figure 1
Evidence for its Efficacy

EMDR is superior in outcome to placebo treatments, and to treatments not specifically validated for PTSD e.g. active listening, standard outpatient care consisting of individual cognitive, psychodynamic, or behavioural therapy, relaxation training with biofeedback. EMDR is not merely an exposure therapy. In fact, the efficacy of EMDR has been found to be relatively equivalent to CBT therapies in seven randomized clinical trials that compared the two approaches. EMDR is one of the most researched psychotherapeutic treatments for PTSD. Twenty controlled outcome studies have investigated the efficacy of EMDR in the treatment of PTSD. Davidson et al did a meta-analysis evaluating outcomes in thirty-four different EMDR studies. They concluded that EMDR is superior to no-treatment and non-specific treatment controls, and equivalent in outcome to exposure and cognitive behavioural therapies. The Efficacy of EMDR in treating PTSD is evidence-based. Currently, EMDR is endorsed by many prestigious international associations or organizations as one of the recommended treatment modalities for PTSD (Figure 2). Significant decrease in PTSD symptoms is noted after three-four sessions.

What is the Most Essential Component in EMDR?

It is obvious that one would be interested in knowing what elements of EMDR contribute to its effectiveness. In fact EMDR contains many effective components, all of which are thought to contribute to treatment outcome (Figure 3). Interestingly, whether the eye movement component of EMDR is absolutely essential for the treatment effect in EMDR remains controversial. Although there are studies saying that "there is no compelling evidence that eye movements contribute to outcome in EMDR treatment" there are also numerous controlled studies indicating that eye movements cause a decrease in imagery vividness and distress, as well as increased memory access. It is interesting to note that besides eye movements, other external stimuli such as hand-tapping and verbalization are often used. For those who would like to know more about EMDR, you may visit the website of our association for more details. In fact, much of the information in this article can also be found there.

Conclusion

In summary, EMDR is an efficacious & evidence-based psychological treatment for patients with PTSD. It is rapid and is considered to have at least the same efficacy as CBT in the treatment of PTSD. When treating patients with PTSD, EMDR should be considered as one of the psychological treatment choices or as adjunct therapy to current pharmacological treatment.

References

**MCHK CME Programme Self-assessment Questions**

Please read the article entitled "Use of Eye Movement Desensitization & Reprocessing Therapy in the Treatment of Post Traumatic Stress Disorder" by Dr. Wei LIN and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded 1 CME credit under the Programme for returning completed answer sheets via fax (2865 0345) or by mail to the Federation Secretariat on or before 28 February 2009. Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

Questions 1-10: Please answer T (true) or F (false)

1. In their Cochrane review, Rose et al pointed out that there was no evidence for the efficacy of one-session psychological debriefing provided soon after exposure to potentially traumatising event and that "compulsory debriefing of victims of trauma should cease" as post-incident debriefing may do more harm than good to people exposed to potentially traumatising event.

2. For the standard format of EMDR, typically there are six stages for a typical EMDR session.

3. SPECT study of Pre and Post-EMDR for six PTSD subjects who had each received three EMDR sessions showed increase in bilateral activity of the anterior cingulate.

4. In general, significant decrease in PTSD symptoms are noted after three-four sessions.

5. EMDR is superior to no-treatment and non-specific treatment controls, and equivalent in outcome to cognitive behavioural therapy.

6. When treating patients with PTSD, EMDR should be considered as one of the psychological treatment choices or as adjunct therapy to current pharmacological treatment.

7. So far, only around ten thousand people have received EMDR in the world.

8. Studies have shown that EMDR can reduce the strength of hippocampally mediated episodic memories of the traumatic event and the memory associated, amygdala-mediated negative effect.

9. EMDR is merely an exposure therapy.

10. Currently, EMDR is endorsed by the many prestigious international associations or organizations as one of the recommended treatment modalities for PTSD.

**ANSWER SHEET FOR FEBRUARY 2009**

Please return the completed answer sheet to the Federation Secretariat on or before 28 February 2009 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) self-assessment questions.

**Use of Eye Movement Desensitization & Reprocessing Therapy in the Treatment of Post Traumatic Stress Disorder**

**Dr. Wei LIN**

MBChB (CUHK), MRCPsych, FHKCPsych, FHKAM (Psychiatry)

Specialist in Psychiatry, Associate Consultant, Department of Psychiatry, Shatin Hospital

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Name (block letters): ____________________________  HKMA No.: ____________________________

HKID No.: ___ ___ - ___ ___ ___ X X (x)  HKDU No.: ____________________________

Contact Tel No.: ____________________________  CDSHK No.: ____________________________

**Answers to January 2009 Issue**

Chest Pain - A Guide to Our Daily Clinical Practice

Retrospective Study on the Outcome of Patients Attending Psychogeriatric Day Hospital (PGDH)

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Introduction

Elderly populations grow rapidly all over the world. In Hong Kong, the proportion of people aged 65 and above has risen from 4.5% in 1971 to 9.6% in 1994, and 11.3% in 2000. A tremendous proportion of these elderly people suffered from psychiatric disorders. 28.7% of elderly people without vascular lesions and 36.4% of patients with stroke suffer from depression. Furthermore, 6-7% of dementia patients also require psychiatric care. However, the resource in providing psychiatric care to the rapidly growing elderly population in Hong Kong is limited. It is necessary to evaluate the efficacy of the services we are currently providing in order to make full and good use of the limited resource.

It is believed that psychogeriatric day hospital is able to maintain the mental/cognitive function of elderly, and prevent relapse of mental illness among them. However, up till now, there is no published study on the efficacy of psychogeriatric day hospital locally. There are papers published in UK debating for and against the efficacy of day hospitals. The opponents of day hospital suggested that day hospital represent an expensive and anachronistic form of patient management and available resource should be invested in alternative models of service delivery. For those who defend for day hospitals, they believe that day hospitals offer a particular kind of care that community teams or local day centres cannot match. Data are needed to support the effectiveness of day hospitals especially when most of us are facing budget restraint nowadays.

Kowloon Hospital is the first psychiatric unit to set up a psychogeriatric day hospital (PGDH) in Hong Kong; it offers a multidisciplinary approach in the management of patients, involving medical staff, nurses, physiotherapists and occupational therapists. Elderly patients aged 65 years or above, not bed-ridden and suffer from dementia, or other functional psychiatric illness are referred from out-patient clinics to day hospital. In general, patients who are expected to have intensive treatment that cannot be given on an out-patient basis due to the nature of illness or lack of/inadequate carers’ support will be selected. The maximum capacity of the day hospital is 20 patients per session. And it is vital to examine the effectiveness of the day hospital in order to support the need of the continual existence of the PGDH or to reconsider channelling the limited resource to other forms of service provision. In this study, we reported the 6-month outcome of all patients attending Kowloon PGDH from November 2002 to June 2005.

Methods

All patients attending the Kowloon PGDH from 1-November 2002 to 31 October 2005 were included. All these PGDH patients were assessed on admission and 6 months after admission using a set of standardised measuring scales. Clinical records of these patients were also reviewed.

Rating Scales

Nine clinical rating scales were employed to assess the various aspects of these patients’ symptoms, cognitive functioning, physical impairment, behavioral disturbance problems as well as the carers’ distress.

The assessment scales used were:

1. Geriatric Depression Scale (GDS)
2. Mini-Mental State Examination (MMSE)
3. Cohen-Mansfield Agitation Inventory (CMAI)
4. Barthel Index (BI)
5. Lawton Instrumental ADL (LIADL)
6. Tinetti Test Score (TTS)
7. Elderly Mobility Score (EMS)
8. Zarit Burden Interview (ZBI)
9. Holden Communication Scale (HCS)

All patients were assessed by trained therapists and scored on admission and at 6 months to monitor their change.

Other data including age, sex, diagnosis were extracted from the case record and analysed.

Results

Attendance

<table>
<thead>
<tr>
<th>Year</th>
<th>02-03</th>
<th>03-04</th>
<th>04-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of attendance (session)</td>
<td>4,259</td>
<td>3,394</td>
<td>4,111</td>
</tr>
<tr>
<td>The number of new patients</td>
<td>17</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>The average length of stay (Discharged cases)</td>
<td>543 days</td>
<td>392.5 days</td>
<td>622 days</td>
</tr>
<tr>
<td>The occupancy rate</td>
<td>85.09%</td>
<td>79.09%</td>
<td>83.89%</td>
</tr>
</tbody>
</table>

60 new patients attended the PGDH in the study period. The average annual attendance sessions were 250.5 (2002-3), 130.5 (2003-4) and 241.8 (2004-5) respectively. The significant decrease in attendance in 2003-4 was due to the outbreak of severe acute respiratory syndrome...
Diagnosis of the targeted clients was as follows:

- The mean score was 6.19. The maximum score in the post-test was 14 and minimum was 2 with a mean age of 73.95 years old.
- There was a slight decrease of MMSE score 0.82 in 2 patients.
- In the group of patients (n=3) diagnosed as suffering from depression, 2 of them (66%) showed improvement of mood with GDS changed from -2 to -1.10

**Cohen-Mansfield Agitation Inventory (CMAI):**
(Rating by carers, to look at agitation behaviour in patients with cognitive impairment)

The range of score in the pre-test was 33 to 0. The mean score was 7.68 with standard deviation 10.28.

In the post-test, the maximum score was 29 and minimum was 0 with mean score 7.28 and standard deviation 7.99. 33.33% showed improvement from -10 to -2. This score remained unchanged in 8 patients after 6 months.

**Barthel Index:**
(Assessment of physical disability in elderly people)

In the pre-test, they scored an average of 83.18. For the post-test, the average was 77.27. 5 out of 23 showed some improvement while 40.9% showed deterioration.

Most patients were dependent and ambulant with scores from 65 to 100. 13.64% of them were highly dependent and chair-bounded and the score in these patients ranged from 20 to 35 only, however 2 patients in this highly physical dependent group still showed some improvement in BI score of 5 and 10 respectively.

**Lawton Instrumental ADL:**
(To assess the functional ability of older people in relation to activities of daily living)

Scores from pre-test and post-test were tabled below:

Table 4: Pre-test and Post-test on Lawton Instrumental ADL

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.32</td>
<td>3.05</td>
<td>-0.27</td>
</tr>
<tr>
<td>Maximum</td>
<td>5.6</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>St. Deviation</td>
<td>1.68</td>
<td>1.59</td>
<td></td>
</tr>
</tbody>
</table>

Consistent with the result of Barthel Index, 26.08% of them were highly dependent. 30.04% showed improvement from 0.2 to 0.6 scores.

**Tinett Test Score:**
(To measure a patient’s ability to perform specific tasks, max total score 28)

78.3% of the patients completed the assessment. The average score almost remained unchanged (-0.09) after 6 months. 33.3% of them showed improvement in the score from +1 to +4 and 11% showed decline of -2 to -6.

**Elderly Mobility Score (EMS):**
(Self-completed ordinal scale measuring locomotion, balance, position changes as prerequisites to more complex activities of daily living, max. score is 20)

In the group of patients (n=3) diagnosed as suffering from depression, 2 of them (66%) showed improvement of mood with GDS changed from -2 to -1.10

**Mini-Mental State Examination (MMSE):**
(Developed by Folstein for the rating of cognitive function, maximum score of 30)

Out of the 23 clients, 22 completed the test on MMSE. In the pre-test, the maximum score was 26, minimum score 6, the mean was 17.82 and standard deviation was 5.32. In the post-test, the maximum was 29 and the minimum was 3 with a standard deviation 6.94.

There was a slight decrease of MMSE score 0.82 in average, 63.63% of the clients showed deterioration in various aspects of the cognition and memory recall. However, 36.37 % showed improvement from 1 to 7 in the scores. The score was unchanged over the 6 months in 2 patients.

In the group of patients diagnosed as dementia, 66.66% of them showed deterioration in the MMSE (-7 to -1).

Table 2: Differentiation on diagnosis of targeted clients

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dementia</td>
<td>16</td>
<td>69.56</td>
</tr>
<tr>
<td>Obsessive compulsive disorder</td>
<td>1</td>
<td>4.35</td>
</tr>
<tr>
<td>Bipolar affective disorder</td>
<td>1</td>
<td>4.35</td>
</tr>
<tr>
<td>Hypnotic dependence</td>
<td>1</td>
<td>4.35</td>
</tr>
<tr>
<td>Depression</td>
<td>3</td>
<td>13.04</td>
</tr>
<tr>
<td>Impaired cognitive function after stroke</td>
<td>1</td>
<td>4.35</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>100%</td>
</tr>
</tbody>
</table>

Mini-Mental State Examination (MMSE):
(Developed by Folstein for the rating of cognitive function, maximum score of 30)

Out of the 23 clients, 22 completed the test on MMSE. In the pre-test, the maximum score was 26, minimum score 6, the mean was 17.82 and standard deviation was 5.32. In the post-test, the maximum was 29 and the minimum was 3 with a standard deviation 6.94.

There was a slight decrease of MMSE score 0.82 in average, 63.63% of the clients showed deterioration in various aspects of the cognition and memory recall. However, 36.37 % showed improvement from 1 to 7 in the scores. The score was unchanged over the 6 months in 2 patients.

In the group of patients diagnosed as dementia, 66.66% of them showed deterioration in the MMSE (-7 to -1).

Table 3: Pre-test and Post-test on MMSE for patients with diagnosis of dementia

<table>
<thead>
<tr>
<th>MMSE-Pre-test</th>
<th>MMSE-Post-test</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15.33</td>
<td>14.06</td>
</tr>
<tr>
<td>Maximum</td>
<td>22.00</td>
<td>27.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>6.00</td>
<td>3.00</td>
</tr>
<tr>
<td>St. Deviation</td>
<td>4.5</td>
<td>6.27</td>
</tr>
</tbody>
</table>

However, 13.64% of patient in this group did show some improvement in MMSE from +7 to +1.

**Geriatric Depression Scale (GDS):**
(To rate depression in the elderly, simple, self-administered, 15 item included)

Overall, the maximum score in the pre-test was 13 and minimum was 0. The mean score was 5.04, reflecting a relatively low score in depression indicator. The standard deviation was 3.10.

The maximum score in the post-test was 14 and minimum was 2. The mean score was 6.19. The standard deviation was 3.44.

(SARS) in Hong Kong, with suspension of service during the period from 31.3.03 to 16.6.03. Subsequently, there were episodes of outbreaks of influenza and diarrhoea in some old Aged Homes, which adversely influenced the attendance rate.

All the medical record of these 60 new patients were reviewed, 37 were excluded as they did not attend the PGDH continually for 6 months because of presence of physical illnesses or other family or social problem. 23 patients were analysed (n=23). There were 18 female and 5 male patients. Their age ranged from 62 to 85 (mean age of 73.95 years old).

Diagnosis of the targeted clients was as follows:

Table 5: Pre-test and Post-test on Tinetti Test Score

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>23.65</td>
<td>23.56</td>
<td>0.09</td>
</tr>
<tr>
<td>Maximum</td>
<td>28</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>14</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>St. Deviation</td>
<td>4.61</td>
<td>5.06</td>
<td></td>
</tr>
</tbody>
</table>

Geriatric Depression Scale (GDS):
(To rate depression in the elderly, simple, self-administered, 15 item included)

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The maximum score in the post-test was 14 and minimum was 2. The mean score was 6.19. The standard deviation was 3.44.

In the group of patients (n=3) diagnosed as suffering from depression, 2 of them (66%) showed improvement of mood with GDS changed from -2 to -1.10

Cohen-Mansfield Agitation Inventory (CMAI):
(Rating by carers, to look at agitation behaviour in patients with cognitive impairment)

The range of score in the pre-test was 33 to 0. The mean score was 7.68 with standard deviation 10.28.

In the post-test, the maximum score was 29 and minimum was 0 with mean score 7.28 and standard deviation 7.99. 33.33% showed improvement from -10 to -2. This score remained unchanged in 8 patients after 6 months.

Barthel Index:
(Assessment of physical disability in elderly people)

In the pre-test, they scored an average of 83.18. For the post-test, the average was 77.27. 5 out of 23 showed some improvement while 40.9% showed deterioration.

Most patients were dependent and ambulant with scores from 65 to 100. 13.64% of them were highly dependent and chair-bounded and the score in these patients ranged from 20 to 35 only, however 2 patients in this highly physical dependent group still showed some improvement in BI score of 5 and 10 respectively.

Lawton Instrumental ADL:
(To assess the functional ability of older people in relation to activities of daily living)

Scores from pre-test and post-test were tabled below:

Table 4: Pre-test and Post-test on Lawton Instrumental ADL

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.32</td>
<td>3.05</td>
<td>-0.27</td>
</tr>
<tr>
<td>Maximum</td>
<td>5.6</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
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<td>St. Deviation</td>
<td>1.68</td>
<td>1.59</td>
<td></td>
</tr>
</tbody>
</table>

Consistent with the result of Barthel Index, 26.08% of them were highly dependent. 30.04% showed improvement from 0.2 to 0.6 scores.

Tinett Test Score:
(To measure a patient’s ability to perform specific tasks, max total score 28)

78.3% of the patients completed the assessment. The average score almost remained unchanged (-0.09) after 6 months. 33.3% of them showed improvement in the score from +1 to +4 and 11% showed decline of -2 to -6.

Elderly Mobility Score (EMS):
(Self-completed ordinal scale measuring locomotion, balance, position changes as prerequisites to more complex activities of daily living, max. score is 20)
About 50% of them could achieve full scoring of 20 while 31.8% attained score 15 or above at the beginning.

### Table 6: Pre-test and Post-test on Elderly Mobility Score (EMS)

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>16.7</td>
<td>16</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>St. Deviation</strong></td>
<td>4.97</td>
<td>5.75</td>
<td></td>
</tr>
</tbody>
</table>

9.09% showed decline in EMS. 18.18% showed some improvement from +1 to +2.

**Zarit Burden Interview:**
(A widely used scale in studies of carers’ burden, total score ranges 0-88)

Preliminary findings can be graded according to the following range:

### Table 7: Range of Zarit Burden Interview

<table>
<thead>
<tr>
<th>Range</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>Little or no burden</td>
</tr>
<tr>
<td>21-40</td>
<td>Mild to moderate burden</td>
</tr>
<tr>
<td>41-60</td>
<td>Moderate to severe burden</td>
</tr>
<tr>
<td>61-88</td>
<td>Severe burden</td>
</tr>
</tbody>
</table>

In the pre-test, the maximum score was 68 and minimum was 11 with 41.37 as mean score and standard deviation 17.7. Only 10.53% experienced little or no burden at all. 31.58% had mild to moderate burden and 42.11% exhibited moderate to severe burden. 15.79% reported to have severe burden in taking care of dementia patients.

From the post-test, the maximum score was 80 and minimum was 14 with mean as 45.47 and standard deviation 17.5.

### Table 8: Pre-test and Post-test on Zarit Burden Interview

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>41.37</td>
<td>45.47</td>
<td>+3.05</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>68</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>11</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td><strong>St. Deviation</strong></td>
<td>17.7</td>
<td>17.5</td>
<td></td>
</tr>
</tbody>
</table>

Comparison of burden scales before and after half-year rehabilitation programme is listed as follows:

### Table 9: Comparison on range of Zarit Burden Interview

<table>
<thead>
<tr>
<th>Range</th>
<th>Pre-test in %</th>
<th>Post-test in %</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>10.53</td>
<td>5.56</td>
<td>-4.97</td>
</tr>
<tr>
<td>21-40</td>
<td>31.58</td>
<td>28.89</td>
<td>-2.73</td>
</tr>
<tr>
<td>41-60</td>
<td>42.11</td>
<td>38.89</td>
<td>-3.22</td>
</tr>
<tr>
<td>61-88</td>
<td>15.79</td>
<td>16.67</td>
<td>0.88</td>
</tr>
</tbody>
</table>

44.44% had decrease in burden scale from -33 to -2. 44.44% experienced increased stress level in comparison with last assessment from +3 to +62. About 11.12 of the case remained unchanged in the stress level.

**Holden Communication Scale (HCS)**
Most of the patients were within the lower range at the pre-test with some deterioration of an average of +2.86. 14.29% showed no change throughout the process. 57.14% had an increase of +1 to +21 while 28.57% with a decrease of -1 to -5.

### Table 10: Pre-test and Post-test on Holden Communication Scale (HCS)

<table>
<thead>
<tr>
<th>Assessment tool</th>
<th>T</th>
<th>Critical value</th>
<th>Significant</th>
<th>Improved/worsened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric Depression Scale (GDS)</td>
<td>56.5</td>
<td>68</td>
<td>✓</td>
<td>worsened</td>
</tr>
<tr>
<td>Mini-Mental State Examination (MMSE)</td>
<td>72.5</td>
<td>75</td>
<td>✓</td>
<td>worsened</td>
</tr>
<tr>
<td>Cohen-Mansfield Agitation Inventory (CMAI)</td>
<td>23.5</td>
<td>26</td>
<td>✓</td>
<td>Improved</td>
</tr>
<tr>
<td>Barthel Index (BI)</td>
<td>36</td>
<td>37</td>
<td>✓</td>
<td>worsened</td>
</tr>
<tr>
<td>Lawton Instrumental ADL (LIADL)</td>
<td>29.5</td>
<td>26</td>
<td>X</td>
<td>Unconfirmed</td>
</tr>
<tr>
<td>Tinetti Test Score (TTS)</td>
<td>13</td>
<td>17</td>
<td>✓</td>
<td>worsened</td>
</tr>
<tr>
<td>Elderly Mobility Score (EMS)</td>
<td>10</td>
<td>14</td>
<td>✓</td>
<td>worsened</td>
</tr>
<tr>
<td>Zarit Burden Interview (ZBI)</td>
<td>60</td>
<td>47</td>
<td>X</td>
<td>Unconfirmed</td>
</tr>
<tr>
<td>Holden Communication Scale (HCS)</td>
<td>54.5</td>
<td>68</td>
<td>✓</td>
<td>worsened</td>
</tr>
</tbody>
</table>

N= 23, p=0.05

### Results Analysis

Wilcoxon Signed-Ranks Test, a test specially used for non-parametric value of same-and matched-subject design, was applied on the data of the assessment scales used to measure the effectiveness of the programmes run by PGDH. The results were as follows:

### Table 10: Comparison on range of Zarit Burden Interview

#### Discussion

Significant changes were found in most of the assessments except the Lawton Instrumental ADL and Zarit Burden Interview. Patients attending the PGDH were still found to have deterioration in various aspects including mood (depression), cognitive function, functional level, balance, mobility, carers’ burden and communication. Improvements were found in their agitation problems. Most of these patients suffered from senile dementia and depression. Despite these worsening, our patients and their carers were still benefited (ADL and carers’ burden showed no significant change) from the day hospital. Dementia is an irreversible degenerative illness with many complication problems like depression, psychosis and behaviour problem. In fact, the ‘worsening’ of cognitive function and mood (depression) in our group although ‘non-significant’. Carers’ burden depended on factors apart from patient’s behaviour (agitation) like functional level (BI, Lawton ADL) or physical state (Tinetti test, EMS). The Tinetti and EMS score in our group only worsened very slightly but the more significant decline in functioning as reflected by the deterioration in BI may offset the benefit of improved agitation (CMAI) on carers’ burden (Zarit Burden Interview) and this explained the inverse relationship of CMAI’s improvement with carers burden. This is the
first study of psycho-geriatric day hospital in Hong Kong and it is difficult to compare our results with other centres as there was no similar study reported overseas.

Limitations:

60 patients were recruited for the study, 23 of them completed the assessment after 6 months. It is difficult to trace and ascertain the outcome of those ‘drop-outs’ as they were unable to attend the PGDH for assessment due to physical deterioration or lack of carers to bring them back for assessment.

The sample size was small especially in groups other than those with diagnosis of dementia, which makes it impossible to analyse the effect of PGDH in each individual group.

The study period was 6 months for each patient. It is possible that some beneficial effect of PGDH may take longer time to take place especially in those patients who attended few sessions per week in the study period.

There is no control group to compare the results of the studied PGDH patient with those not attending the PGDH.

The sampling and assessment of the patients were limited by our mode of service provision; the patients selected came from the same catchments area of Kowloon Hospital and might not be representative of the population of Hong Kong.

Further studies on psycho-geriatric day hospital is necessary. It would be better to recruit more patients in various catchment areas (or in multiple centres), with more representative in each group of diagnosis, assessment regularly at more extended period (over 6 months), and be controlled with patients like those attending outpatients department.

Conclusion

Most of our patients attending the PGDH showed improvement in behaviour problem such as agitation. Although they continued to decline in some aspects like cognitive function, physical dependence and mood, the decline of cognitive function and mood (depression) in our group is slight (MMSE decrease 0.82 and GDS increase 1.15) and may be better than other elderly patients not able to attend PGDH. In addition, their carers’ perceived burden didn’t show significant worsening. Although the present study showed some promising result, due to the limitations listed, more large scale and systemic research is needed to evaluate the efficacy of PGDH to the mentally ill elderly in Hong Kong.

References

1. PGD, CPH. Psychogeriatric services in Hong Kong: Development of psychogeriatric services in Hong Kong
5. The Day Hospital in old age Psychiatry: The case against, Fasey C. Int J of Geri Psych, 9:519-523
Quetiapine Induced Neuroleptic Malignant Syndrome

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Abstract

A case of quetiapine-induced neuroleptic malignant syndrome is presented. A 21-year-old gentleman with paranoid schizophrenia developed fever, muscle rigidity, autonomic lability, clouding of consciousness and increased creatine kinase two weeks after change of neuroleptic medication. The clinical symptoms resolved one week after discontinuation of the newer neuroleptic medication.

Key words: quetiapine; neuroleptic malignant syndrome

Introduction

Neuroleptic malignant syndrome (NMS) was first described by Delay in 1968 (Delay 1968). It is an uncommon but serious consequence related to agents that affect dopamine neurotransmission (Levenson 1985). Quetiapine is a relatively new antipsychotic drug that has only low affinity for dopamine receptors but with higher potency towards adrenergic receptors. Due to its characteristic pharmacokinetic properties, it is expected that NMS is not a common complication of quetiapine prescription. We should pay attention to this rare but potentially fatal complication since there is escalating use of newer antipsychotic drugs in recent years related to their favourable side effect profile compared to traditional antipsychotic medication. We present a case of NMS related to quetiapine therapy in a patient with paranoid schizophrenia.

Case Report

A 21-year-old gentleman with history of mild mental retardation was admitted to mental hospital because of mental deterioration. He presented with agitation, and increase in irritability. He harboured auditory hallucination and persecutory delusion. He attempted to commit suicide by wrist cutting. He had history of mild mental retardation and was first known to the Mental Health Services in his childhood. He had repeated admissions to mental hospital in relation to his repeated aggression and suicidal attempts driven by his psychotic symptoms. He was diagnosed to have paranoid schizophrenia on top of his mild mental retardation. Physically, he has history of allergy to seafood.

Concerning his medication history, he had been put on various psychiatric medications including chlorpromazine, trifluoperazine, zuclopenthixol depot, haloperidol, lithium carbonate, carbamazepine, sodium valproate, clonazepam, risperidone, olanzepine and clozapine for the control of his psychotic symptoms. However, he showed marked extra pyramidal reaction towards haloperidol. He also developed significant muscle rigidity while he was put on risperidone 3mg twice daily. He developed generalised tonic clonic convulsion and sinus tachycardia as he was put on clozapine 100mg in the morning and 175mg at night. Quetiapine was instead of clozapine because of the marked and significant side effects that he suffered. He was started on Quetiapine 50mg daily and escalated the dose up to 150mg daily within two weeks. He developed fever (37.7°C) on Day 14. His blood pressure ranged from 140/100 to 100/60. Leukocyte count was 10.3 x 109/L, alkaline phosphate of 61 U/L, ALT of 22 U/L, creatine kinase of 1680 U/L. He also showed muscle rigidity. Medication was stopped. Supportive treatment, anti-pyretics and diazepam 5mg twice daily was given. However, his fever went up to 38.5°C on Day 3 after the cessation of quetiapine. His blood pressure was labile and fluctuating. Electrocardiogram showed sinus tachycardia up to 132 beats in one minute. Chest radiography was unremarkable. Investigation showed leukocytes of 10.8 x 109/L, alkaline phosphate of 62 U/L, ALT of 57 U/L, creatine kinase of 1680 U/L. A diagnosis of NMS was made. Anti-pyretics and intravenous fluid was given together with close monitoring. Treatment with dantrolene, and dopamine agonist was not used. Fever subsided and his blood pressure was normalised. Investigation revealed leukocyte of 5.9 x 109/L, alkaline phosphate of 56 U/L, ALT of 15 U/L, creatine kinase of 176 U/L on Day 6 after the discontinuation of quetiapine. No more rigidity was observed. His vital signs including body temperature, pulse and blood pressure remained stable.

Discussion

Neuroleptic malignant syndrome is a fatal complication related to neuroleptic drug use. It is described as an idiosyncratic reaction to neuroleptic medications. NMS is assumed to be precipitated by central dopaminergic blockade. The ability of neuroleptic drugs to precipitate NMS appears to be related to their antidopaminergic potency (So 2001). There is no evidence between the actual dose or duration of exposure of the neuroleptic drug and the development of NMS. There is no significant difference in the duration of clinical symptoms with short-acting compared with long-acting
Neuroleptic drugs (Shalev et al, 1989). The incidence of NMS syndrome is ranged from 0.2% (Caroff et al, 1993) to 2.2% (Hermesh et al, 1992). It occurs in all ages and is most prevalent in the male sex with the ratio of 2 to 1. Risk factors include male sex, young age, preceding agitation or exhaustion, dehydration, rapid increases in dosage of neuroleptics, pre-existing catatonia, past history of NMS (Caroff et al, 1993), and lower serum iron level (Rosebush et al, 1991). Medications associated with NMS including neuroleptic agents particularly those with D\(_2\) blockade, atypical antipsychotics, anstiemetics, symptoms (Shalev & Munitz, 1986). Investigation pyramidal symptoms usually precede autonomic instability soon after the use of neuroleptic medications. Signs include catatonia, tachycardia, tachypnoea, labile blood pressure, dysarthria, dysphagia, sialorrhoea, rigidity, myoclonus (Caroff et al, 1993). There is no typical sequence of symptoms, but extra pyramidal symptoms usually precede autonomic symptoms (Shalev & Munitz, 1986). Investigation showed an elevation of serum creatine kinase, lactate dehydrogenase, alanine aminotransferase, and aspartate aminotransferase (Caroff et al, 1993). There may be generalised slowing consistent with encephalopathy in electroencephalogram. Fever could have a central and a presynaptic origin. Heat is produced from serotonin stimulation in the thermoregulatory centre of the preoptic nuclei of the anterior hypothalamus. The dopaminergic receptor blockade reduces the inhibition of serotonin stimulation resulting in increases in heat production (Myers 1990). Moreover, dopamine may increase skeletal muscle contraction resulting in heat production and rigidity (Tollefson 1982). The autonomic instability in NMS is related to the hyperactivity of sympat-ho-adrenomedullary system. The increase in muscle tone and muscle rigidity is related to the dopaminergic blockade in the corpus striatum whereas the frontal-limbic involvement may lead to alteration of consciousness (Ebadi et al, 1990). Differential diagnose include malignant hyperthermia, serotonin syndrome, lethal catatonia, and environmental heat disorder.

NMS usually develops within the first week of initiating neuroleptics and nearly all develop within the first month (Caroff et al, 1988). It is usually self-limiting after the cessation of neuroleptic agents. More than half of them improve after one week and nearly all of them recover after one month (Caroff et al, 1988). Conditions will be prolonged in those receiving depot neuroleptics. However, residual catatonic symptoms could persist for months if left untreated after the acute hyperthermic symptom subsides (Caroff et al, 2000). It could run a downhill course with rapid deterioration and the mortality rate is 20 to 30% (Shalev et al, 1989). The mortality rate for adolescents and prepubertal youths is 13% and 27% respectively (Peterson et al, 1995). Death may result from unexpected cardiopulmonary arrest, aspiration pneumonia, pulmonary emboli, myoglobinuric renal failure, or disseminated intravascular coagulation. Renal failure is a strong predictor of death, with an associated mortality of 50% (Adnet 2000).

Early recognition and prompt management are essential and could substantially reduce mortality and morbidity. NMS usually resolves after discontinuation the indexing agent together with supportive medical and nursing care (Caroff et al, 1993). Dopamine agonists including bromocriptine may be used to reverse the dopamine D\(_3\) receptor blockade produced by neuroleptics. It could reduce muscle rigidity within a short time with associated reduction in temperature. Skeletal muscle relaxants like dantrolene could stimulate muscle relaxation by inhibiting ionised calcium release from sarcoplasmic reticulum to relieve the muscle rigidity. Benzodiazepines could be an alternative to reduce muscle rigidity. Temperature could be reduced by means of anti-pyretics, ice pack, and cooling blankets. Alkalinisation of urine and correction of volume depletion is necessary in case rhabdomyolysis occurs. ECT is shown to be effective in the treatment of severe NMS (Trollor et al, 1999).

Quetiapine is one of the atypical neuroleptic medications with different pharmacokinetic properties to the traditional ones. It has a low affinity for D\(_1\), D\(_2\) and 5HT\(_2\) receptors but with moderate affinity for adrenergic \(\alpha_1\) and \(\alpha_2\) receptors. Based on its characteristics in receptor binding and the mechanism of NMS, it makes quetiapine uncommon to develop NMS and extra pyramidal side effects.

As illustrated by our case, he has a number of risk factors making him more vulnerable to develop NMS including young age, male sex, preceding agitation and exhaustion, recent change of neuroleptic medication and past history of severe extra pyramidal reaction towards traditional antipsychotic agents. Although the incidence of NMS was said to be lower towards traditional antipsychotic agents. It has a low affinity for D\(_1\), D\(_2\) and 5HT\(_2\) receptors but with moderate affinity for adrenergic \(\alpha_1\) and \(\alpha_2\) receptors. Based on its characteristics in receptor binding and the mechanism of NMS, it makes quetiapine uncommon to develop NMS and extra pyramidal side effects.

Quetiapine with its predominantly blocking effect on adrenergic receptors, it is commonly believed that quetiapine rarely induces NMS. Therefore, we need to pay more attention and alert oneself with the possibility of NMS if patient presented with rigidity, fever, autonomic instability and alteration of conscious level.

Conclusion

Neuroleptic malignant syndrome is a rare but potentially fatal complication induced by antipsychotic agents with potent dopaminergic blocking properties. Quetiapine with its predominantly blocking effect on adrenergic receptors, it is commonly believed that quetiapine rarely induces NMS. Therefore, we need to think of NMS for those who present with hyperthermia, muscle rigidity, altered consciousness and autonomic instability. Early diagnosis and treatment improves both morbidity and mortality.
References

Building a Beautiful Mind for Children

Dr. Hing-wah LEE
Specialist in Psychiatry, Department of Psychiatry, Kowloon Hospital

A specter is haunting the world - the specter of intellectualisation. Someone may cheer it as the omnipotent cure for widespread poverty of the developing countries and the sluggish development of the Western world whereas others may felt threatened and may call for an alliance to exorcise this specter. Different people might have different views. However, it remains certain that, like it or not, intellectualisation has come. It is coming not as a wick specter nor as a benefactor. Its meaning depends on our attitude and action. In the face of the challenges brought by intellectualisation, skill is power, knowledge is power, courage is power. Above all, education is power. With education, we can transform the wick specter of intellectualisation into a benevolent genie. Good education upgrades the quality of the population and brings forth wealth to a country. So nowadays, parents put a lot of efforts in providing quality education to their children.

When Should Education be Started?

This question has been asked by teachers, parents, children for centuries. Nowadays, parents send their kids to school when they approach two years old. Even before that, many kids have attended interest classes or playgroups of different themes. Many institutions claimed that children’s potential can be enhanced by attending certain courses at as early as six months old. There is a trend for earlier onset of education. In spite of our current emphasis on preschool education, preschool education actually has remained dormant in the large part of human history. Preschool education had a humble beginning and only came to play in the nineteenth century. Delayed development of preschool education was caused by the lack of scientific knowledge regarding psychological and intellectual development of children, and the long-standing misunderstanding about the balance of risk and benefit to young children brought about by early education. It was the efforts of pioneers in different stages of that early education that could eventually prove its value and establish its status in the evolution of human history and modern society. I try to name a few innovative figures contributing to this area.

Karl H.G, Witte

Karl H.G. Witte was a German pastor of the early nineteenth century. His son Johann Heinrich Friedrich Karl Witte was born in 1800. Before the age of two, little Karl was regarded as a dumb boy. Initially his parents resented having an unsatisfactory child. People of those days believed education would not be useful to little children. However sad and frustrated, Pastor Witte insisted on investing his life in educating little Karl. He devised a series of strategic plans, methodology and intensive programme in teaching little Karl. After years of perseverance and insistence, his effort eventually bore fruit. When Karl Witte was nine he spoke five languages and at fourteen was certified for a doctorate at the University Liezig. Later Pastor wrote a book: The Education of Karl Witte. In his book, he stated the principle - that the education of a child should begin with the dawning of the child’s intelligence - came into direct collision with the accepted pedagogical policy of refraining from anything in the way formal education until the child reached school age. Such idea was in contradiction with the prevalent theory of those days. The prevalent theory of those days stated that the child would be robbed of the joys of childhood and there would also be grave danger of irreparably injuring his health by overstraining his mind. Amidst such atmosphere, Pastor Witte insisted on his principle and he proved to the history and the world that he had gone on the right path. The outcome of Pastor Witte’s effort or experiment was, later opined by educational authorities, not due to the wisdom of the course provided, but the innate ability of the child. Unfortunately, his great work had been buried for centuries in the library of Harvard University. The English translation only reappeared to the world in the recent decades.

Maria Montessori

Maria Montessori was an Italian physician and educator. She was born in a wealthy family in Italy in 1870. She received a medical degree at 26 years old and became the first female doctor in Italy. Her background and early upbringing did not override her concern over the poor and the weak. She started her career in teaching the mentally retarded children at 28 years old. In the course of teaching, observation, experimenting and analysis, she had designed several teaching aids and tools. She had also established several important educational principles. She established ‘Children’s Home’, which offered education to poor children. In 1909, she wrote a book ‘Montessori Method of Education’, which laid a foundation for development of early childhood education in the coming decades. Her principles of education had been widely researched and practised in many developed countries. Dr. Montessori
stated that the most important learning stage of a person was from birth to six years old rather than the age of university education and it was at that stage that one’s wisdom be developing and shaped. Again her theory was not in line with the contemporary belief of her days. At the beginning of the twentieth century, there were not many schools for children younger than six years old. Both Pastor Witte and she were the innovative and pioneering educators of their days.

The Establishment of Kindergarten

The literal meaning of Kindergarten is Children’s Garden. It is the education for young children which serves as a transition from home to the more formal schooling. Children are taught to develop basic skills through creative play and social interaction. Kindergarten is part of the preschool system in many countries. Children attend Kindergarten to learn to communicate, play, and interact with others appropriately. As stated above, the general belief of those days did not favour early education. It took quite sometime to have sufficient courage for Friedrich Wilhelm August Froebel to establish the first kindergarten in 1840. Froebel used ‘Kindergarten’ to describe this institution. This marked the beginning of formal childhood education and paved the way for the forthcoming long-lasting preschool system in the modern world. The first kindergarten in the United States of America was founded by Meyer Schurz in 1856. Her success drove her to offer her education to other children as well. Later that year, Peabody founded the first English-language kindergarten in America in Boston, following Schurz’s model. Gradually kindergartens became more prevalent in the modern society.

Despite the short history and the humble beginning, we have got flourished development of childhood education over the past two centuries. Thanks to the advancement of psychological, neurological and educational theories, we have got different schools of theory and systems in this area. Having looked back at the beginning and the old days, let us move forward and take a glimpse at the modern line of thought regarding childhood education. Multiple Intelligence is one of the most influential theories.

Multiple Intelligence

Multiple Intelligence was established by Dr. Howard Gardner, a developmental psychologist in Harvard University. This theory was based on the study of differences in ability among people who got brain injury. Traditionally schools only emphasised training in language and mathematical abilities. However, these two areas cannot account for the whole of human intelligence. Different people have different combination of strengths in different abilities. For example, an architect or a sculptor is good at visual spatial ability, an athlete or a ballet dancer is good at kinesthetic ability, a personnel manager is good at dealing with interpersonal affair. Dr. Gardner claimed that the conventional explanation of intelligence was too narrow. So under the theory of Multiple Intelligence, holistic education should cover a comprehensive range of abilities namely:

1. Linguistic intelligence
2. Logical mathematical intelligence
3. Visual spatial intelligence
4. Musical intelligence
5. Kinesthetic intelligence
6. Interpersonal intelligence
7. Intrapersonal intelligence
8. Naturalistic intelligence

Linguistic Intelligence

Linguistic intelligence encompasses the ability to learn and use language in grammatical, phonetic and semantic aspects. People with high linguistic intelligence can think, read, discuss, write in language with competence.

Language learning in young children has been one of the prime concerns among parents. There are a few points for language learning to note.

a. It is important to master one’s mother tongue first. Language is the framework for thinking and thus the foundation for further intellectual development. Thus mastering one’s mother tongue enables the young to proceed further along the course of learning life.

b. The sequence of language is listening, speaking, reading and then finally writing. It is believed that such sequence is applicable to the learning of first, second or even third language. Unfortunately, our educational system at times gets wrong in the sequence of teaching, especially the teaching of second language.

c. The early learning of phonics or phonetics plays an important part in language learning. One can master spelling and develop an idiomatic accent earlier after acquiring the skill in phonics or phonetics.

d. Language learning in children had better been conducted in a funny manner. Children have the inborn affiliation for playing and having fun. The effectiveness of learning language will be enhanced if we can make good use of funny cartoon, songs, rhymes in the course of learning and teaching.

e. Learning language should not be just confined to class, playgroup or school. It is better if we can merge learning language in daily activities.

Logical Mathematical Intelligence

This is the ability in dealing with number, logical reasoning, deduction, pattern recognition, sequencing, sorting similarity and differences, measurement and classification. Engineers, scientists and mathematicians are good at this intelligence. From the studies of children’s mathematical ability, it was found that an infant less than one year old was able to sense the concept of conservation- that is such quantities as mass, number, weight and volume remains constant regardless of changes in appearance. Children in this stage show an ability to reason logically about objects.
and to apply rules. In the course of teaching young children mathematical concept, it is better to use concrete materials to illustrate the abstract mathematical concept.

**Visual Spatial Intelligence**
This is the ability to sort out the relations in colour, line, shape, pattern, space. People with high visual spatial intelligence are good at thinking in the form of visual image. Artists and architects are good at this intelligence.

**Kinesthetic Intelligence**
This is the ability to express ideas or feelings in the form of bodily movement. People with high kinesthetic intelligence are skillful in learning through bodily action and bodily feeling. Athletes are generally good at this intelligence.

**Musical Intelligence**
People with high musical intelligence are skillful in detecting and sorting out rhythm, pitch, melody. They are able to think through rhythm and flow of melody.

**Interpersonal Intelligence**
People with high interpersonal intelligence are sensitive in detecting others’ emotion, motivation and feeling through observing others’ facial expression, intonation and gesture. They are fond of team work and they feel easy in the presence of others.

**Intrapersonal Intelligence**
People with high intrapersonal intelligence understand themselves well. They are certain about one’s own emotion, motivation, temper, wish, strength and weakness. They often think of one’s value and direction of development.

**Naturalistic Intelligence**
We are living in the nature. We need to observe the nature in order to survive. Before the agricultural period, we needed to observe and to understand other animals’ habits and properties in order to hunt or to avoid being hunted. For agriculture, we needed to understand the change of weather in order to have good harvest. From the bodily contour and swimming action of fish, we got the aspiration of building boats and ships. From observing birds, we got the clues of designing aircraft. From ancient to modern, we have got to understand the elements of nature so as to survive. So naturalistic intelligence—the power of detecting the elements of nature and making good use of it are always with us in the course of historical development. Nowadays, we often talk about creativity. However, creativity does not mean that we create new things. The elements and materials are already present in nature. Detecting such elements and making new combination of the existing elements are the mechanism of creativity.

**Conclusion**
Childhood development has important impact on one’s personality formation and intellectual attainment thus is pivotal in the quality of one's mental health in the future. It is important for parents and the policy maker to seize the golden period of a person—childhood, by offering tailored education and proper upbringing to our children when they are still young. From ancient to modern, the emphasis on childhood education started from zero to the current diversified development. Nevertheless, we should not lose sight of the most important element of upbringing: good parental bonding and a happy childhood. These are the basis on which children thrive well physically and psychologically.

**References**
3. 高婉珍, 蒙特梭利教育法· 學前教育第三冊 (2001)
8. 成子編, 經作式學前數學· 幼兒香港教育 (2004)
9. 香港教育工作者聯會·香港教育·三聯出版 (2000)
10. 陸越著·幫助你的孩子 (一)· 品品教育出版 (1999)
Recent Event Highlight

Dr. Man-tak WONG

FHKAM(Psychiatry), Specialist in Psychiatry
Associate Consultant, Department of Psychiatry, Kowloon Hospital

Title: The Sick Brain
Organisation: Lundbeck Institute
When: 2nd-3rd August, 2008
Where: Sheraton Dameisha Resort, 9 Yankui Road, Dameisha, Yantian, Shenzhen

Objective
This workshop took a new perspective on all major brain disorders which produce psychiatric symptoms, including mood disorders, anxiety disorders, psychosis, PTSD, OCD, ADHD, dementia, pain & medically unexplained symptoms, to review new discoveries and new treatment concepts. Clinicians, including various specialists treating any of the above patients, could benefit from this interactive workshop.

Speakers
Day 1. The Brain Diseases: Psychiatric, Neurological, Medical Systematic Disorders: By Professor Brian E. Leonard, Pharmacology Department, NUI Galway and Department of Psychiatry and Psychotherapy, LMU, Munich, Former President of The Collegium Internationale Neuro-Psychopharmacologicum, PhD, Dsc

Day 2. The Sick Brain: What should you do as a doctor? By Professor SW Tang, Ph.D, MBA, FRCp(C), DPM, Dip American Board, former Chair Professor of Psychiatry at the University of Hong Kong, Emeritus Professor of Psychiatry at the University of California, Irvine; President, Hong Kong Society of Biological Psychiatry

Discussants
- Professor Moussa B.H. Youdim, Ph.D; Distinguished Professor, Polytechnic & Hong Kong Universities, Director of Eve Topf & NPF Centers of Excellence for Neurodegenerative Diseases, Finkelstein Professor of Life Sciences, Technion-Rappaport Family Faculty of Medicine, Haifa, Israel;
- Professor Brian E. Leonard;
- Professor SW Tang

Content Highlights
In day 1, Professor Leonard presented his viewpoint about psycho-neuro-immunology.

- It was possible that stress induced inflammatory changes were a major precipitant of disturbance in central and peripheral homeostatic mechanism. A detailed investigation of the immune pathways in different psychiatric disorders might therefore enable the underlying pathology to be ascertained and possibly lead to novel therapeutic advances. For example, in case of depression, pro-inflammatory cytokines and neurotoxins predominate could lead to neuro-degeneration. On the other hand, in cases of schizophrenia, anti-inflammatory pathways were predominant which might point to "anti-brain" antibodies.

- The macrophage theory of depression by Smith (1991) which postulated that pro-inflammatory cytokines from activated macrophages were responsible for many of the symptoms of major depression. There was evidence that there seemed to be an increase in these cytokines in the blood of depressed patients, besides depression-like symptoms were initiated by bacterial and viral infections, such as anhedonia, anorexia, lethargy, sleep disturbance, loss of libido and memory deficit, while effective antidepressant treatment reduced these changes.

- Disrupted homeostatic mechanisms, in the brain and periphery, are reflected in the inflammatory changes that play a crucial role in both physical and mental ill health. Possible disrupted homeostatic mechanisms related to psychiatric disorders included (a) problems in limbic regions involving neurotransmitters and cytokines; hypothalamus involving adipokines, neuropeptides, cytokines; (b) periphery systems like: lipid metabolism, insulin secretion, sympathetic nervous system, cytokines; (c) disruption in cellular function involving mitochondria.

- There could be a dysfunction in the hypothalamic-pituitary-adrenal axis, as there was evidence that hypercortisolaemia frequently occurred in depression and schizophrenia. Furthermore, stress response (+ cortisol releasing factor, + cortisol) was increased in patients suffering from depression and schizophrenia.

- It was also an interesting fact that heart disease was linked to depression and schizophrenia. In the Monica-Kora Augsburg Cohort study 1984-1998 [Ladwig et al. Eur. Heart J. 2005], depression increased the power of elevated C-reactive protein (CRP) to predict subsequent myocardial infarction.

- Obesity was often associated with schizophrenia and depression (+ intra-abdominal fat), which in
In day 2: Professor Tang presented possible mechanisms that affected neurogenesis, which in turn could be important in the treatment of various psychiatric disorders. Many neuro-psychiatric disorders had evidence of regional degeneration, hyprofrontality, ventricular size enlargement, cognitive and memory impairment. Example: in schizophrenia, there was evidence of significantly reduced neuronal stem cell proliferation, dilated ventricles and decreased volume of the prefrontal cortex, while following brain trauma and cerebral ischaemia there was excessive glutamate levels observed.

- Stress, a major trigger for depression and schizophrenia, had the effect of activation of the central and peripheral sympathetic systems which increased lipolysis. As a result the increase in saturated fatty acids activated receptors on macrophages and adipocytes, which again led to an increase in activity of inflammatory pathway and innate immune response. [Hang et al.2006]

- Thus in general, physical ill health played a major role in maintaining, and possibly initiating, the inflammatory response.

- Environmental triggers (e.g. stress, diet) also played a significant role initiating and maintaining the inflammatory response.

In day 2: Professor Tang presented possible mechanisms that affected neurogenesis, which in turn could be important in the treatment of various psychiatric disorders. Many neuro-psychiatric disorders had evidence of regional degeneration, hyprofrontality, ventricular size enlargement, cognitive and memory impairment. Example: in schizophrenia, there was evidence of significantly reduced neuronal stem cell proliferation, dilated ventricles and decreased volume of the prefrontal cortex, while following brain trauma and cerebral ischaemia there was excessive glutamate levels observed.

- Neurogenesis enhancers included: Growth factors; Neutrotropic factors, Serotonin; Antidepressants (Neurogenic, Neurotrophic and Glialgenic); Atypical antipsychotics; Exercise (Voluntary).

- On the other hand, neurogenesis suppressors were: Cortico-steroids; Ageing; Stress; Inflammation.

Implication of neurogenesis and nerou-degenerative model of psychiatric illnesses suggested doctors to treat early, with adequate dose and duration. Besides, other adjunct therapies could be important, like exercise which stimulated growth factors and at the same time reduced peripheral risk factors such as diabetes, hypertension and cardiovascular diseases (which caused brain dysfunction and neurodegeneration); management in stress and cognitive therapy were also beneficial, which reflected back to what Professor Leonard had presented the day earlier that stress could have major impact on various homeostatic mechanisms.

Response of the Workshop A Total 31 of participants from both the public and private sectors, including psychiatrists, geriatritians and family doctors.

Radiology Quiz

Dr. Ka-kin WONG
Associate Consultant, QMH

Questions:

42-year-old gentleman presented with seizure. A non-contrast axial CT scan was performed. What are the imaging findings and diagnosis?
News from Member Societies:

Dental Society, HKUSU
Updated office-bearers for the year 2008-2009 are as follows: President: Ms. Chi-wai LO; Honorary Secretary: Mr. Cheuk-fung LAM; Honorary Treasurer: Ms. Cheuk-yu LO

The College of Dental Surgeons of Hong Kong
Updated office-bearers for the year 2008-2009 are as follows: President: Dr. Joseph C.Y. CHAN; Honorary Secretary: Dr. Sai-kwing CHAN; Honorary Treasurer: Dr. Alfred C.C. TSANG

The Hong Kong College of Family Physicians
Updated office-bearers for the year 2008-2009 are as follows: President: Dr. Gene W.W. TSOI; Honorary Secretary: Dr. Tung-chi LAW; Honorary Treasurer: Dr. Ho-lim LAU

The Hong Kong Society of Nephrology
Updated office-bearers for the year 2008-2009 are as follows: President: Dr. Sing-leung LUI; Honorary Secretary: Dr. Chi-bon LEUNG; Honorary Treasurer: Dr. Tze-hoi KWAN

The FMSHK would like to send its congratulations to the new office-bearers and look forward to working together with their societies.

骗老外的菜
麦莱諾醫生
沙田醫院 神經科

很多時看似普通的食物製作過程並不容易。友人很喜愛一道菜，差不多每一間粵菜餐馆都一定供應，那就是港人常揀的外食人士到粵菜飯店都必然會點的菜 - 咕嘰肉。可是友人對於此菜的要求十分高，並不是任何餐馆所作的咕嘰肉都受歡。有天，他跟朋友說及咕嘰肉的製法，興致勃勃地分享最近吃咕嘰肉的經驗，他表示現今的大酒家作這道菜也很馬虎，不是所謂太厚，便是汁料甜酸配搭有很大的落差。筆者完全同意，再者當有衆多的選擇也得講究才可做出一道合乎水準的咕嘰肉。很多顧客慢慢，索性只在外頭飯館才點吃，筆者首推大埔區和城外之風製作的咕嘰肉。曾往大酒家多次，酒家食物的水準不俗，有幾道頗有心思的菜也做得不錯，咕嘰肉尤其出色，除了基本上菜時的溫度得宜，每塊豬肉放進口裏還很爽口，所用的炸漿厚度適中，夾汁的調校也得宜，所以整道菜做得十分出色。

朋友常問為什麼這道菜那麼難作？筆者卻覺得並非不可能，於普通家庭裏也應作得相當有水準，問題只是兩個關鍵，要懂得用油及炸豬肉的技巧。

前些日子曾經朋友到家作客，興之所至便煮起一道咕嘰肉作晚膳用，朋友們好奇都擠進我狹小的廚房裏看。傳統上所用的豬肉應屬臘肉部份，有時筆者也會用新鮮臘肉作得不錯。將豬臘肉洗淨並醃味，放進冰箱內備用。

配菜當然亦隨便便，我也隨意挑選了三色椒及菠蘿，將它們切成小塊備用。接著準備一罐清油，將醃上蛋漿的臘肉放進，並以中火炸之，待臘肉表面稍微金黃便將之轉以中火火透，撈起後一會兒便可重新將炸好的肉塊一起放下油並翻炸，使外表變得更均勻。

接著最巧妙的便是獻汁的作法，一般是利用山渣、白醋、白糖及鹽等製，友人若覺得太費功夫，亦可讚書傳統方法製作而成的酸汁來代替。首推利氏酒家所製的酸汁，按需要可另添茄汁及砂糖增加色味及味道。

將配料炒過後，便將臘肉回鍋，並放下已調味的獻汁炒 至獻汁濃稠便可。事後唔，大樂！
The Federation Annual Dinner 2008

Thematic on “Light and Beauty”, the 2008 Annual Dinner brought a very glamorous and memorable New Year’s Eve for some 200 members, their families, friends and work partners at the Hong Kong Academy of Medicine Jockey Club Building. Apart from lively entertainment from Suzan, dance performance from lovely kids, grand dragon dance by all participants, we had the honour to share the beautiful photographs taken by Dr. Amy PANG in her travelling photographic expeditions. We also had portrait photography, Lexus car shows, Leica camera exhibitions, wine tasting and amusing hall & booth games leading our participants to the count-down for Year 2009. The Annual Dinner also marked a grand start of the New Year, especially for more than 50 lucky guests and their kids who won great prizes in the games and draws.

The Annual Dinner was completely filled with beauty and laughter. Please visit our homepage www.fmshk.org to recall the joy of the night.

Federation President Cup Soccer Five Tournament 2008 - Photo Competition

The President Cup Soccer Five Tournament 2008 has come to end and winners have been announced in January issue of The Hong Kong Medical Diary. This year we extended the participation to team players’ family and friends by holding a photo competition. Twenty entries were received and we would like to send congratulations to the winners that include Dr. Chan Hoi Yee, Mr. Jacky Ting, Dr. Sung Wing Kuen and Dr. Pong Chiu Fai.

Winner

"Balance, Beauty" - Taken by Dr. Sung Wing Kuen

1st Runner-up

“好幫手: 小小時分員” - Taken by Mr. Jacky Ting

2nd Runner-up

"競爭" - Taken by Dr. Chan Hoi Yee

3rd Runner-up

Taken by Dr. Pong Chiu Fai
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<td>HKMA Structured CME Programme at Queen Elizabeth Hospital Year 08/09 (XI) - Dermatology</td>
<td>Joint Professional Marathon Competition (Standard Chartered Hong Kong Marathon 2009, 10 km)</td>
<td>Certificate Course on Clinical Teaching and Assessment (Code no. TC-CTA-0902)</td>
<td>HKMA Choir Rehearsal</td>
<td>HKMA Council Meeting</td>
<td>Joint Surgical Symposium - Laparoscopic and Robotic Upper G.I. Cancers</td>
<td>The Inaugural Wine Dinner</td>
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**Date / Time** | **Function** | **Enquiry / Remarks**
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**3** | **8:00 pm - 10:00 pm**<br>TUE<br>6:30 pm - 9:30 pm (10,17,24) | **FMSHK Officers’ Meeting**<br>Organised by: The Federation of Medical Societies of Hong Kong. 4 Galllop, 2/F., Hong Kong Jockey Club Club House, Shan Kwong Road, Happy Valley, Hong Kong.<br>**Certificate Course on Clinical Teaching and Assessment (Code no. TC-CTA-0902)**<br>Organised by: College of Nursing, Hong Kong.<br>Ms. Pauline TANG<br>Tel: 2527 8898 Fax: 2865 0345<br>Secretary<br>Tel: 2572 9255 Fax: 2838 6280 24 CME points

**4** | **8:00 pm**<br>WED<br>(11,18,25) | **HKMA Choir Rehearsal**<br>Organised by: The Hong Kong Medical Association, Venue: CRI, Hong Kong Cultural Centre.<br>Ms. Candy YUEN<br>Tel: 2527 8285

**5** | **8:00 pm**<br>THU | **HKMA Council Meeting**<br>Organised by: The Hong Kong Medical Association, Chairman: Dr. H.H. TSE, Venue: HKMA Head Office, 5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong.<br>Ms. Christine WONG<br>Tel: 2527 8285

**6** | **8:00 am - 9:00 am**<br>FRI | **Joint Surgical Symposium - Laparoscopic and Robotic Upper G.I. Cancers**<br>Organised by: Department of Surgery, The University of Hong Kong & Hong Kong Sanatorium & Hospital, Chairman: Prof. Ronnie POON, Speakers: Prof. Simon LAW & Prof. K.M. CHU, Venue: Hong Kong Sanatorium & Hospital.<br>Department of Surgery, Hong Kong Sanatorium & Hospital<br>Tel: 2835 8698 Fax: 2892 7511 1 CME Point (Active)

**8** | **5:15 am**<br>SUN | **Joint Professional Marathon Competition (Standard Chartered Hong Kong Marathon 2009, 10 Km)**<br>Organised by: The Hong Kong Medical Association, Venue: Island Eastern Corridor.<br>Miss Viviane LAM<br>Tel: 2527 8452 (Registration fee is required) 3 CME Points

**9** | **7:30 pm**<br>MON | **Seminar on Cultural Relics**<br>Organised by: The Hong Kong Medical Association, Venue: HKMA Head Office, 5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong.<br>Ms. Dora HO<br>Tel: 2527 8285

**12** | **9:00 am - 5:00 pm**<br>THU<br>(13 Feb)<br>2:00 pm - 5:00 pm | **International Symposium on Management of Tobacco Dependence: From East to West, North to South**<br>Organised by: Tobacco Control Office, Department of Health, Venue: Kowloon Shangri-La, 64 Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong.<br>Dr. Barry Tam (Medical & Health Officer, Department of Health)<br>Tel: 2961 8745<br>Detail of Symposium: http://www.tco.gov.hk/istd.pdf<br>Online Registration (available since 16 Jan): http://www.tco.gov.hk/istdreg.htm<br>Miss Viviane LAM<br>Tel: 2527 8452 (Registration fee is required) 1 CME Point

**13** | **7:30 pm**<br>FRI | **The Inaugural Wine Dinner**<br>Organised by: HKMA Head Office, 5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong.<br>Ms. Dora HO<br>Tel: 2527 8285

**14** | **2:30 pm**<br>SAT | **Refresher Course for Health Care Providers 2008/2009 - Lumps and Bumps / Minor Operation**<br>Organised by: The Hong Kong Medical Association and Our Lady of Maryknoll Hospital, Chairman: Dr. LO Siu Fai, Speaker: Dr. LO Siu Fai, Venue: Training Room II, 1/F, OPD Block, Our Lady of Maryknoll Hospital, 118 Shatin Pass Road, Wong Tai Sin, Kowloon, Hong Kong.<br>Ms. Clara TSANG<br>Tel: 2572 9255 2 CME Points

**16** | **6:30 pm - 9:30 pm**<br>MON<br>(23) | **Certificate Course in Ward Management Module IV Managing Work in Health Service (Code no. TC-WM-0901)**<br>Organised by: College of Nursing, Hong Kong.<br>Secretariat<br>Tel: 2572 9255 Fax: 2838 6280 24 CME points

**17** | **6:30 pm - 9:30 pm**<br>TUE<br>(24) | **Certificate Course on Update in Renal Nursing (Code no. TC-RN-0901)**<br>Organised by: College of Nursing, Hong Kong.<br>Secretariat<br>Tel: 2572 9255 Fax: 2838 6280 24 CME points

**18** | **1:00 pm**<br>WED | **HKMA Shatin Doctors Network CME - Treating Diabetes with Incretin-Based Therapies - A New Approach**<br>Organised by: HKMA Shatin Doctors Network, Speaker: Prof. TONG Chun Yip Peter, Venue: Royal Park Hotel, Shatin.<br>Miss Viviane LAM<br>Tel: 2527 8452 2 CME Points

**19** | **7:00 pm - 10:00 pm**<br>THU<br>(20,21) | **FMSHK Executive Committee and Council Meeting**<br>Organised by: The Federation of Medical Societies of Hong Kong # Council Chambers, 4/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong.<br>Ms. Paulina TANG<br>Tel: 2527 8898 Fax: 2865 0345

**20** | **2:00 pm**<br>FRI<br>(21,22) | **HKMA Structured CME Programme with PMH Year 2009 (I) - Anti-Cancer Treatment in Oral Preparation**<br>Organised by: The Hong Kong Medical Association, Speaker: Dr. TSE Yiu Cheong, Venue: The HKMA Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-22 Connaught Road Central, Hong Kong or HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong.<br>Ms. Dora HO<br>Tel: 2527 8285

**22** | **8:00 pm**<br>SUN | **HKMA Orchestra Rehearsal**<br>Organised by: The Hong Kong Medical Association, Venue: Theatre, HK City Hall.<br>Ms. Candy YUEN<br>Tel: 2527 8285

**27** | **8:00 pm**<br>FRI | **HKMA Choir - Family Concert**<br>Organised by: The Hong Kong Medical Association, Venue: Theatre, HK City Hall.<br>Ms. Candy YUEN<br>Tel: 2527 8285
Calendar of Events

Courses


**Advanced Trauma Life Support (ATLS) Student Course**
Organised by: Department of Surgery, Queen Mary Hospital & Hong Kong Chapter of the American College of Surgeons Venue: The Jockey Club Skills Development Centre, C3, Main Block, Queen Mary Hospital, Pokfulam, Hong Kong Enquiry: Course Administrator Tel: 2855 4885 / 2855 4886 Fax: 2819 3416 Email: hnsrg@hkucc.hku.hk Web site: http://www.hku.hk/surgery


**Pre-Hospital Trauma Life Support (PHTLS) Provider Course**
Organised by: Department of Surgery, Queen Mary Hospital; Hong Kong Chapter of the American College of Surgeons & Hong Kong St. John Ambulance Association Venue: Hong Kong St. John Ambulance Association Tel: 2530 8020 Email: assn@stjohn.org.hk Web site: http://www.hku.hk/surgery


**Advanced Medical Life Support (AMLS) Provider Course**
Organised by: Department of Surgery, Queen Mary Hospital & Hong Kong Chapter of the American College of Surgeons Venue: The Jockey Club Skills Development Centre, C3, Main Block, Queen Mary Hospital, Pokfulam, Hong Kong Enquiry: Course Administrator Tel: 2855 4885 / 2855 4886 Fax: 2819 3416 Email: hnsrg@hkucc.hku.hk Web site: http://www.hku.hk/surgery


**Advanced Trauma Care for Nurses (ATCN) Provider Course**
Organised by: Department of Surgery, Queen Mary Hospital & Hong Kong Chapter of the American College of Surgeons Venue: The Jockey Club Skills Development Centre, C3, Main Block, Queen Mary Hospital, Pokfulam, Hong Kong Enquiry: Course Administrator Tel: 2855 4885 / 2855 4886 Fax: 2819 3416 Email: hnsrg@hkucc.hku.hk Web site: http://www.hku.hk/surgery

In **Schizophrenia**

There is a deep problem

*Noncompliance with treatment is undoubtedly the greatest problem in public health.* (Kane)

For patients who need long-term antipsychotic treatment 

- **Protects against disruptions in therapy**

**Risperdal CONSTA: Assured Continuous Long-term Coverage**

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 predominance in decrees abolishing the previous competence. A unique and again new." Only the latter constraint of bringing the observed path of the separatists in the period before the Second World War, and excluding the other, and that was the principle of the right to power in the interwar period. The Second World War underlines, that the above-mentioned period of history contains the most explicit statement of the Republic's foreign policy. This is the case, because the same period was also marked by the increasing influence of the Russian political system and the guidance of the 
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Answer to Radiology Quiz

Answer:

CT scan shows gyriform calcification over left temporal and occipital regions with focal widening of cerebral sulci at the medial left occipital lobe suggesting cerebral atrophy. The ipsilateral calcified choroid plexus is larger than the left one. Bilateral frontal sinuses especially the left one are hyper-pneumatised. Generalised thickening of the calvarium is noted, secondary to long term intake of anti-epileptic medications. Features are suggestive of Sturge-Weber Syndrome.

Sturge-Weber Syndrome, also known as encephalotrigeminal angiomatosis, is a sporadic congenital malformation. It is usually presented with seizures or stroke-like episodes. Patients usually suffer from port wine stain, eyelid naevus, choroidal angioma and even glaucoma. It is a progressive disease with developmental delay, neurological deficits and cerebral atrophy.

Dr. Ka-kin WONG
Associate Consultant, QMH

Stock Sale

The hard bound Medical Diary 2008 is now for sale. For $150, you can keep a collection of all 12 monthly issues of the Medical Diary for the year. Should you wish to keep a copy, please feel free to contact our Secretariat on 2527 8898 or via email info@fmshk.org.
Ebixa® - Overcoming everyday challenges in Alzheimer's

Ebixa®:

• Is a very well tolerated and safe treatment for Alzheimer's disease with low potential for drug-drug interactions\(^1,2\)

• Significantly reduces distressing behaviour such as agitation/aggression and irritability\(^3\)

References:
1) H Lundbeck A/S. Data on file, Ebixa EPAR

The one therapy for depression and anxiety

Lexapro\(^\circ\) is indicated for:\(^1\):

- Major Depressive Disorder
- Generalized Anxiety Disorder
- Social Anxiety Disorder
- Panic Disorder
- Obsessive-Compulsive Disorder

Reference: 1. Lexapro\(^\circ\) Product Insert

Further information is available upon request.