

- Med 1980;302:189-93.
4. Potts JT Jr, Ackerman IP, Barker CF, et al. Diagnosis and management of asymptomatic primary hyperparathyroidism: Consensus Development Conference Statement. *Ann Intern Med* 1991;114:593-7.
  5. Bilezikian JP. Guidelines for the medical or surgical management of primary hyperparathyroidism: To operate or not to operate. In: Bilezikian JP, Levine MA, Marcus R(eds). *The Parathyroids: Basic and Clinical Concepts*. New York: Raven Press Ltd., 1994:567-74.
  6. Bilezikian JP, Silverberg SJ, Gartenberg F et al. Clinical Presentation of Primary Hyperparathyroidism. In: Bilezikian JP, Levine MA, Marcus R(eds). *The Parathyroids: Basic and Clinical Concepts*. New York: Raven Press Ltd., 1994:457-70.
  7. Clark OH. Hyperparathyroidism. In: Clark OH(ed). *Endocrine surgery of thyroid and parathyroid glands*. St Louis, Toronto, Princeton: Mosby Co., 1985:172-240.



Figure 1

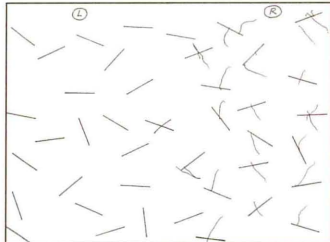


Figure 2



Figure 3

## THROUGH THE LOOKING GLASS

### *The diagonal patient and perceptual neglect*

The patient shown in Figure 1 slumped to one side diagonally, leaving an exposed triangle on the back of the chair, a sitting posture which Professor Bernard Issacs identified as a predictor of long-stay<sup>1</sup>. This is the characteristic posture of the patient with perceptual neglect: the trunk, head and eyes all turned away from the affected side. Perceptual neglect is the tendency to ignore spatial surroundings on the side contralateral to the side of cerebral damage; the afflicted has a distorted image of her own body and of her surroundings. Unilateral neglect can be readily detected by the Albert's test<sup>2,3</sup> in which the patient is asked to cross out lines ruled on a sheet of paper; the central line being crossed by the examiner as a demonstration. Our patient left 55%(22/40) of lines uncrossed on her left side(Figure 2) and this indicates severe left-sided neglect. A functional equivalent of this in everyday activity is leaving half of the plate unfinished and yet she would ask for more! Moreover, the eyes of a diagonal patient would not be parallel to the horizon so that it would be difficult for her to relate to food normally during eating. Perceptual neglect has been found in 49% of non-dominant hemisphere strokes and 25% of dominant hemisphere strokes in the early stages<sup>3</sup>. The distress to patients with neglect is best shown by the self-portrait(Figure 3) of a stroke victim upon recovery. It may be further aggravated if such patients are mistakenly labelled as "poorly motivated" or "demented". I remember attending a psychogeriatric session in which a patient appeared indifferent to the questions of a psychogeriatrician. Subsequently, a therapist noted that the patient had right-sided neglect. CT later revealed a left-sided brain tumour. Retrospectively, the psychogeriatrician understood the reason for the lack of response from the patient; he was all along sitting on the right side of the patient! That patient actually had trimodal neglect<sup>4</sup>(visual, auditory and tactile neglect occurring together). Well, beware of the fallacy of the golden rule "examine a patient on his right side" when assessing patients with right-sided neglect. Adams<sup>5</sup> identified neglect as an important prognostic factor in determining functional recovery from stroke and successful discharge back home. Similarly, the Albert's test score(percentage of lines left uncrossed) was identified as a significant predictor of both mortality and functional activity six months after stroke<sup>3</sup>. In strokes, family members and even health profession tend to focus on motor paralysis and ignore perceptual deficits. Because perceptual neglect carries important functional and prognostic significance, it deserves much more attention from all those caring for stroke patients.

**Tak-Kwan Kong**

Department of Geriatrics  
Princess Margaret Hospital  
Kowloon, Hong Kong

## References

1. Issacs B. *The Challenge of Geriatric Medicine*. Oxford, New York, Tokyo: Oxford University Press 1992:174,187.
2. Albert M. A simple test of visual neglect. *Neurology* 1973;23:658-64.
3. Fullerton KJ, McSherry D, Stout RW. Albert's test: a neglected test of perceptual neglect. *Lancet* 1986;i:430-2.
4. Heilman KM, Pandya DN, Geschwind N. Trimodal inattention following parietal lobe ablations. *Trans Am Neurol Assoc* 1970;95:259-61.
5. Adams GF, Hurwitz IJ. Mental barriers to recovery from strokes. *Lancet* 1963;ii:533-7.