

LETTER TO THE EDITOR

PECKING INJURY OF THE EYE

A 62-year-old Malay woman was brought to our clinic after having been pecked in the eye by a hen. Ocular examination of the right eye revealed a through and through laceration wound of the upper eyelid and a limbal perforation at 1-2 o'clock position with iris and vitreous prolapse. The limbal perforation was found to have extended onto the sclera nasally for 6mm with the eyeball collapsed nasally due to prolapsed vitreous. The anterior chamber was shallow with total hyphaema.

The patient was started on intravenous gentamicin and cloxacillin and taken to the operating theatre, where the prolapsed iris was repositioned, anterior vitrectomy was done, the limbal and scleral perforation repaired and the globe reformed with balanced salt solution. Ocular examination one week later revealed folds in the Descemet's membrane, fully formed anterior chamber, low intraocular pressure of only 4mm of mercury, blood clot covering the pupillary area and a visual acuity of only perception of light.

According to Duke - Elder injuries to the human eye that result from the pecking of birds are uncommon and are mostly caused by owls and roosters. Complications that have been

reported include septic abscess of the lens and retinal detachment^(1,2). In the animal world, predators often attack the most vulnerable areas, which allow for rapid injury to the prey. Perhaps the cornea, shaped like a target, and its colour, contrasted with the rest of the face, draw the attention of the predator.

This case reminds us that serious injuries to the human eye can result from the pecking of birds. As the patient was pecked in the eye while feeding the hen, all poultry rearers are advised to take care while feeding the hen and if possible to wear some form of protective goggles.

Dr. Sivagnanam Chidambaram
Consultant Ophthalmologist,
General Hospital Kota Bharu,
Malaysia.

1. Duke - Elder S, Mac Faul P. Perforating wounds of the eye. In: Duke - Elder S. ed. System of ophthalmology. Vol 14. St. Louis : C.V. Mosby, 1972: 324
2. Chaddah MR, Aggarwal DC. Pecking injury of the cornea. Indian J Ophthalmol 1977;25:9.

BOOK REVIEW

SINGAPORE OPHTHALMOLOGY – Selected Essays to commemorate the 30th Year of The Society of Ophthalmology

Compiled by Dr Lim Kwang Hui

Singapore Society of Ophthalmology, 1994

ISBN 981-00-5416-5

This is a collection of selected papers which have been published in the Singapore Medical Journal, the Annals of the Academy of Medicine, Singapore, and international journals, editorials and messages to commemorate the 30th Anniversary of the Society of Ophthalmology, Singapore, compiled by an eminent Singaporean ophthalmologist.

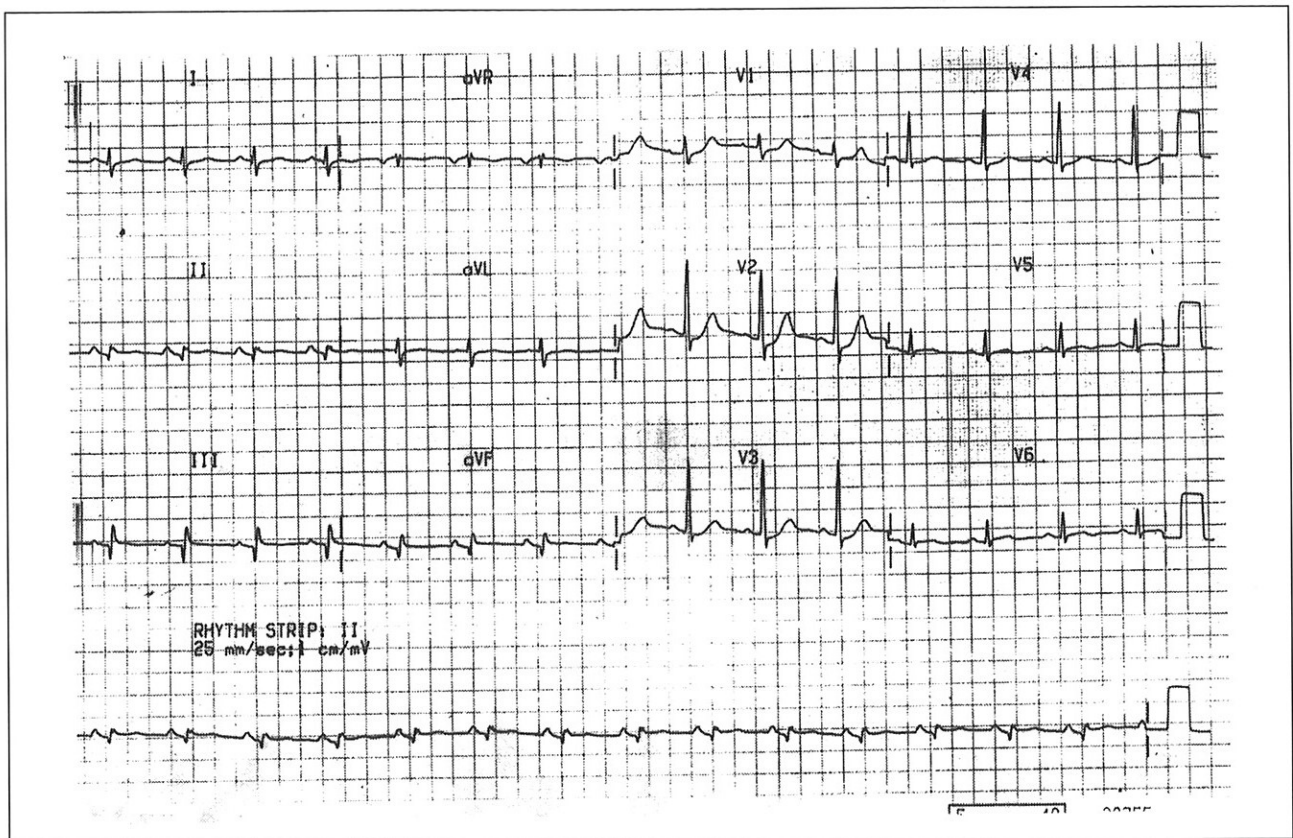
It is divided into six sections which follow the messages and introductory remarks about ophthalmology in Singapore. **Section 1** deals with the history of ophthalmology in Singapore from its inception in the Civil General Hospital in 1934 to date. **Section 2** is composed of papers which deal with the problems associated with blindness which have been published in both local and international journals. **Section 3** reproduces ten outstanding research papers in ophthalmology which have been published and also prize-winning essays, special lectures and orations. **Section 4** deals with the activities of the Society of Ophthalmology since its inception in 1934 to date. **Section 5**

reports on the two important international Congresses which were hosted by the Society in 1986 and 1990. Finally, **Section 6** deals with the contributions of the Society to the CME Programme in Singapore.

The book has been a labour of love and much pain and care has been put into its publication. It is an excellent anthology of ophthalmology in Singapore which one would like to have on one's bookshelf whether or not one is an ophthalmologist for it provides not only a collection of some of the best essays in ophthalmology by local ophthalmologists, but also a resource centre for tracing the history and development of ophthalmology in Singapore.

A/Prof Tan Choon Kim
Department of Anatomy
National University of Singapore

Fig 2 – ECG of the same patient one day later showing evolved inferoposterolateral MI.



ANSWER TO ELECTROCARDIOGRAM Acute inferoposterolateral myocardial infarction.

DISCUSSION

This patient has clearly suffered an acute inferior myocardial infarction (MI). The diagnostic ECG criteria for an acute myocardial infarction are the presence of pathological Q waves and elevated ST segments best seen in leads II, III and aVF which are leads orientated to the inferior wall of the left ventricle. The characteristic history of chest pain and ECG changes definitely confirms the diagnosis of myocardial infarction. The main differential diagnosis is that of acute pericarditis and this has been discussed previously ⁽¹⁾.

Inferior MI is associated with occlusion of either the right coronary artery (RCA) or the left circumflex artery (LCx). Acute inferior MI results from RCA occlusion in 50-70% of cases, while the remainder are due to occlusion from LCx or rarely from occlusion of a left anterior descending artery (LAD) wrapping around the apex to supply a portion of the inferior wall of the left ventricle ⁽²⁾. LCx artery occlusion can cause an inferior MI (changes in II, III, aVF), a lateral MI (changes in I, aVL, V5, V6) or a true posterior MI (R duration of 0.04 second or more, and R>S in V1 or V2). RCA occlusion causes inferior MI which may be associated with right ventricular infarct when the proximal right coronary artery is occluded or a lateral MI when the mid or distal portion is occluded ^(3,4). Unlike patients with anterior MI which is invariably due to occlusion of the LAD artery, identification of the infarct-related artery in inferior infarction is less clear-cut. This ECG illustrates some of the features that may help to distinguish involvement of the right coronary from the left circumflex artery.

In this patient's ECG, upsloping ST segment elevations

are seen in leads V5 and V6 indicating concomitant lateral MI. The presence of both ST segment elevations in the inferior leads and lateral leads (aVL, V5 or V6) have been found to be much more common in circumflex artery-related infarctions compared to RCA lesions, with a positive predictive value of 91% ^(4,5). Furthermore, ST depressions are seen in the precordial leads V1 to V4 which, in the context of inferior MI, can represent (i) hyperacute phase of posterior myocardial infarction, or (ii) extensive inferior MI associated with anterior wall ischaemia. In this case, tall R waves are present in the precordial leads V1-3 on the ECG done 1 day later (Fig 2) indicating a concomitant posterior infarction. Huey et al found that a posterior MI was highly specific for LCx occlusion although the sensitivity was low ⁽⁴⁾. The height of the ST segment elevations in II and III have also been found to be useful in localisation. In LCx occlusion, the hyperacute ST elevation is more marked in lead II than lead III. The converse is true in right coronary lesion ⁽⁶⁾. Other more subtle signs of a circumflex artery lesion have been described in the literature. Some of these can be seen in Fig 1. An isoelectric or elevated ST segment in lead I suggests circumflex lesion, while ST segment depression in the same lead is seen more frequently in right coronary lesions. In LCx occlusion, the T wave in lead V4R is negative while it is positive in right coronary lesions ^(7,8).

A coronary angiogram was done for the patient on the eighth day post MI and a 90% occlusion of the distal LCx artery was found.

REFERENCES

1. Teo WS. Significance of raised ST segments? Singapore Med J 1992; 33:296.
2. Shah PK. New insights into the electrocardiogram of acute myocardial infarction. In: Gersh BJ, Rahimtoola SH, eds. Acute Myocardial Infarction. New York: Elsevier, 1991:128-43.

3. Schamroth L. ed. The electrocardiographic manifestation of coronary insufficiency. In: Inferior Wall Myocardial Infarction. Blackwell Scientific Publications. 1989:154-63.
 4. Huey BL, Beller GA, Kaiser DL, Gibson RS. A comprehensive analysis of myocardial infarction due to the left circumflex artery occlusion: comparison with infarction due to right coronary artery and left anterior descending artery occlusion. J Am Coll Cardiol 1988; 12:1156-66.
 5. Bairey CN, Shah PK, Lew AS, Hulse S. Electrocardiographic differentiation of occlusion of the left circumflex versus the right coronary artery as a cause of inferior acute myocardial infarction. Am J Cardiol 1987; 60:456-9.
 6. Anderson HR, Nielsen D, Falk E. Right ventricular infarction: diagnosis value of ST elevation in lead III exceeding that of lead II during inferior/posterior infarction and comparison with right-chest leads V3R to V7R. Am Heart J 1989; 117:82.
 7. Braat SH, Gorgels APM, Bar FW, Wellens HJJ. Value of the ST-T segment in lead V4R in inferior wall myocardial infarction to predict the site of coronary artery occlusion. Am J Cardiol 1988; 62:140-2.
 8. Paul Schweitzer. The electrocardiographic diagnosis of acute myocardial infarction in the thrombolytic era. Am J Cardiol 1990; 119:642-54.
-

Call for Papers

We invite authors to submit original manuscripts on any subject pertaining to the practice of medicine for publication in future issues of the *Hong Kong Medical Journal*, the official journal of the Hong Kong Academy of Medicine and the Hong Kong Medical Association. The manuscript may be a report of Original Research, a Review, a Commentary, a Case Report, or Letter to the Editor. All submitted manuscripts are subject to rigorous review, and acceptance of any paper cannot be guaranteed.

Interested parties should obtain a copy of the *Journal's* "**Information for Authors**" by contacting the Managing Editor, Hong Kong Medical Journal, 9th Floor, Multicentre Block A, Pamela Youde Nethersole Eastern Hospital, 3 Lok Man Road, Chai Wan, Hong Kong. Fax: (852) 2505 3149 Tel: (852) 2525 5799/5755.