

Penetrating Cardiac Injury By A Piece of Metallic Plate

Dr. D. N. Gongal, B. Sc., M.B.B.S., M.S., F.I.C.S.

Head of Department of Surgery,
Bir Hospital, Kathmandu, Nepal.

Dr. Govind Sharma, M.D., Ph. D.

Lecturer in Surgery,
T.U., Institute of Medicine.

Case Report

In the department of Emergency of Bir Hospital at 9.50 A.M. on 27.6.1977 a young man of 22 years old was brought for immediate medical care. The patient sustained a penetrating injury to the left anterior chest produced by a piece of metallic plate during the welding work when an Oxygen cylinder burst out. After being hit by the metallic plate he pulled out the metallic plate and there was profuse bleeding. Then he put his hand over the wound and he was rushed to the hospital. His chief complaints were acute pain in the left anterior chest and weakness. On examination there was a bleeding wound just below the left nipple 3.5 "X" in size. He was pale and sweating pulse rate was 100 per minute, feeble but regular. Heart sounds were weak and blood pressure was 70/44 mm of Hg. X-ray chest PA view revealed no foreign body in the chest. His EKG showed non-specific ST changes. Haemoglobin was 10.5 gm. X and PCV 32%.

The patient was immediately taken to the operation theatre where under general anaesthesia with intubation a left antero-lateral thoracotomy was performed through the wound. The pericardium was opened in the vertical axis along the opening in the Pericardium laterally to phrenic nerve. big laceration of the apex of the left

ventricle was found to be bleeding profusely. The cardiac wound was closed by 3 stitched of No. 1 cardiac silk. The pericardium was stitched loosely. The operation wound was closed in layers after putting two water seal chest tubes. The patient required 1.5 litres of blood during and after the operation.

In the post-operative period patient had some temperature for about a week and then it normalized. His laboratory datas were within the normal limits. The chest tubes were removed after a week of the operation. He was given a course of Ampicillin and Gentamycin, After three weeks the patient developed osteomyelitis of the 7th. rib which was resected. During the whole stay in the hospital no serious complication was noted. At the time of discharge from hospital patient could serve himself. The X-ray of the chest was normal and EKG still showed some antero-septal ischaemic changes.

Discussion

Penetrating cardiac injury due to blunt things, as in our case is quits rare in civilian practice. Only a few author have reported such type of cases (Rubio and Reul, 1979). Heart injuries of traumatic origin are not common too. Clinically they have been studied by some authore (Antoniou et al. 1964, Louhimo, 1967, Beach et al 1967, Flicu, 1960). Usually the case of penetrating cardiac injury in these cases are stab and bullets. P. M. Beach and colleagues have reported their experience with 34 patients in a hospital which had no facilities for proper management of such cases. This is the case reported of an unusual case of cardiac injury to the left ventricle caused by a piece of metalic plate during the welding work.

References

1. Rubio, P.A. and Reul, G.J. Penetrating Cardiac injury by wire thrown from a lawn Mower, International Surgery Vol. 64 No. 1, 1979.
2. Antoniou, C.A. Behor, MR; Goldring, D. Non-penetrating treuma to the heart. Birculation, 42, suppl 3, 1964.

3. Louhimo, I: Heart injury after blunt thoracic trauma: Acta chir scand 133, Supl. 380, 1967.
4. Beach P.M. Bognolo, D., Hutchinson, J.E.: Penetrating cardiac trauma. Am. J. Surg. Vol. 131, No. 4, 1976.
5. Flicu J.B. Right Ventriculotomy for removal of intra cardiac bullet Ann. Surg. Vol. 121 No. 2, 1960.



**WITH BEST COMPLIMENTS
FROM
GLAXO & ALLENBURYS
Drugs & Pharmaceutical Division
Glaxo Laboratories (I) Ltd
Bombay**
