Penetrating Cardiac Injury By A Piece of Metallic Plate

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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 30.5 "X1" in size. He was pale and sweating pulse rate was 100 per minute, feeble but regular. Heart sounds were weak and blood pressure was 70/44mm of Hg. X-ray chest PA view revealed no foreign body in the chest. His EKG showed non-specific ST changes. Hae-moglobin 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 data 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 quite 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 authors (Antoniou et al. 1964, Louhimo, 1967, Beach et
al 1967, Ficu, 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 metallic plate during the welding work.

References

1. Rubio, P.A. and Reul, G.J. Penetrating Cardiac injury by wire thrown from a

2. Antoniou, C.A. Behor, MR; Goldring, D. Non-penetrating trauma to the heart.


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