CASE REPORT

ABDOMINAL GUNSHOT INJURY – A RARE CASE REPORT

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ABSTRACT: A 30 year male patient presented in casualty with history of abdominal gunshot injury to left upper side of abdomen. Abdominal X Ray & CT Scan of abdomen revealed bullet at the level of L-5 vertebra.

1. On exploration there were (five) multiple perforations of jejunum & haemoperitoneum of 1.5 liters. The Bullet was impacted in the anterior aspect of body of L-5 vertebra with left common iliac vein puncture wound, which was extracted.
2. On admission patient was in hypotension, but responded well to resuscitation.
3. Patient didn't have any neurodeficit.

KEYWORDS: Abdominal gunshot injury, visceral injury.

CASE REPORT: A 30 year male brought by relatives with history of abdominal gunshot injury. On examination patient's general condition was poor. His pulse was -110/min. & Blood Pressure-90/60 mm of Hg. and severe pallor was present.

Per abdomen examination –

- Bullet entry wound on Left side of abdomen, left upper lumbar region. (Fig- A)
- Abdominal distention was present.
- Peritoneal breach was present on palpation (finger exploration of wound).
- Generalized abdominal tenderness with guarding was present.

Patient was resuscitated with adequate intravenous fluids and blood pressure got improved.

Abdominal X-ray and CT Scan abdomen and pelvis was done which revealed bullet at the level L5 vertebra (Fig-B). After keeping adequate blood ready, emergency exploratory laparotomy was done by lower midline incision. On opening the peritoneum 1500cc of haemoperitoneum was present. There were five perforations of jejunum, (fig.-C) Liver, spleen, stomach, pancreas and colon were normal. There was rent in the left side of retro peritoneum of 2x2cm at level L5. On exploration there was a 12x6 cm size retroperitoneal hematoma & left common iliac vein injury (1.5 cm) was noted which started bleeding heavily. The Bleeding was controlled by suturing of vein injury with prolene No. 8-0. The bullet was identified, which was partially impacted in body of L5 vertebra anteriorly between left iliac vessels. (Fig.-D) The Bullet was removed from body of L5 vertebra and hemostasis achieved with bone wax. (Fig.-E) The retroperitoneal rent was closed. All jejunal perforations were closed separately in two layers. Adequate peritoneal lavage was given with normal saline and abdomen closed after keeping two drains.

Patient tolerated the procedure well .Postoperatively two units of blood transfused. The Patient was put on low molecular weight heparin therapy in the post operative period. This was a rare case where patient did not develop any post operative sensory or motor deficit of lower limbs or deep vein thrombosis. The patient was discharged on 21st post-operative day with oral warfarin.

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Fig. 1: Showing the entry wound of the bullet over anterior abdominal wall.

Fig. 2: Intraoperative c-arm image showing bullet.

Fig. 3: Showing multiple jejunal perforations

Fig. 4: Showing bullet lodged in body of 5 vertebra.

Fig. 5: Showing bullet recovered from the body.

DISCUSSION: Nowadays gunshot injury is a common cause of mortality in civilian trauma cases. In civilian gunshot injury cases bullet pierces the anterior abdomen and enters the peritoneal cavity in 80% of patients, of which visceral injury is seen in 95% of cases.

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Hemodynamic Stability, nature of penetrating object & location of wounds are key features in the decision of algorithm. Laparotomy is performed for gun shot wounds violating the peritoneum, as determined by physical examination & supported by USG & CT Scan of abdomen. Bullets entering the abdominal wall damage the small bowel, stomach and colon & may enter the retroperitoneal space there by endangering major abdominal vessels and kidneys. The most common organs injured in order of frequency are small bowel, stomach, colon, liver, spleen & major retroperitoneal vessels. Multiple organs & vessels injury carry significant mortality & morbidity in contrast to injury to single organ. The major abdominal vessels like- aorta, venacava or common iliac vessels injury causes severe mortality.

The Wound infection, anastomotic leakage, abdominal compartment syndrome & deep vein thrombosis are common post-operative complications following gunshot injury. Perioperative use of broad spectrum antibiotics & adequate peritoneal irrigation during operation will reduce the wound infection. The incidence of deep vein thrombosis can be reduced by early mobilization in post operative period & prompt anticoagulation therapy.

REFERENCES:

1. Maingots abdominal operations 10 the edition. Page no. 763-785, 2001.
2. Rignault D P: Abdominal trauma in war. World J Surg 16: 940-946, 1992.
3. Adesayna A A, Da Roch-Afodu J T, Ekanem E E, et al. Injury 31: 397-404, 2000.
4. Mukart D J J, Abdool-Carim ATO, King B. Selective conservative management of abdominal gunshot wounds; a prospective study. Br J Surg 77: 652-655; 1988.
5. Moore E E, Moore J B, Thompson J S, et al. Mandatory laparotomy for gunshot wounds penetrating the abdomen. Am J Surg 140: 487-451, 1980 .
6. Moore E E, Dunn E L, Moore J B, Penetrating abdominal trauma index. J Trauma 21: 439-445, 19881.
7. Feliciano D V, Burch J M, Mattox K l, et al. Abdominal gunshot wounds; an urban trauma center's experience with 300 consecutive patients. Ann Surg 208: 362-370,1988.
8. Feliciano D V. Abdominal trauma. Maingot's abdominal operations, vol 1, ed 9. New York: Appleton and Lange, 1989, pp 457-512.
9. Nassoura Z, Hajj H, Dajani O et al. Trauma management in a war zone: the Lebanese war experience. J Trauma 31: 1596-1599, 1991.
10. Dawidson I, Milier E, Litwin MS. Gunshot wounds of the abdomen; a review of 277 cases. Arch Surg 111: 862-865, 1

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