

Case	(502) A case of minimal aortic lesion. how to diagnose and what to do.
Authors	M. Caicoya, A. Diez-tascón, A.j. Barrios, F. García, E. Lanz, M. Martí De Gracia.
Centre	Hospital Universitario La Paz.

CASE PRESENTATION

:Our case is a 47 years old man involved in a motorcycle high speed accident brought to the emergency room (ER) with no lesions. Because of the high energy impact he was included in the potentially severe patient plan. A whole body CT scan with split injection protocol of the IV contrast was done. Among other traumatic injuries (nine fractured ribs, pulmonary contusion and left adrenal gland hematoma), in the descending thoracic aorta a small rounded filling defect was seen in the anterior intimal wall. A minimal aortic lesion (MAL) diagnosis was given. The patient was included in the Intensive Care Unit for a conservative treatment. In the follow up CT scans the lesion healed spontaneously .

DISCUSSION

:The development and use of high resolution imaging techniques has enabled us to diagnose minimal aortic injuries. MAL usually do not have a perioartic hematoma and thus they were previously ignored at the ER. The increasing use of MDCT on the evaluation of traumatic patients has played an important role on the detection of this type of lesions. Aortic injuries are classified regarding the depth of the lesion in the vessel wall. The severity increases with its depth. The MAL involve the inner layer, the intima. In this layer a small flap is formed where a thrombus can seat. Minimal aortic lesions are described as an abnormality in the interior contour of the aorta, an intimal flap or a small filling defect. The lesions are usually smaller than 1 cm. They are most commonly located at the descending thoracic aorta. There should be no evidence of alteration of the external contour of this vessel. The MAL are treated conservatively with a minimal mortality rate, however they can seldom progress. The CT scan findings include: filling defect with rounded shape attached to the inner wall of the aorta or a thin filling defect resembling a flap. They tend to spontaneous healing in the follow-up CT scans

CONCLUSION

:Acute traumatic aortic lesions are a spectrum of entities. Minimal aortic lesions have an increasing relevance in the context of traumatic patients. They should be recognized by the radiologist and followed up by CT scan. They heal spontaneously and thus they are treated conservatively.

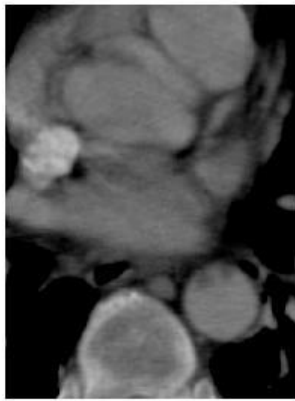


Figure 1

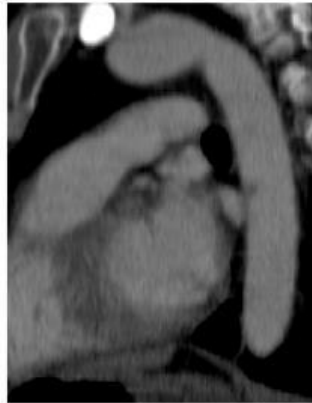


Figure 2



Figure 3

Contrast enhanced CT with split injection protocol of the chest of a 47 years old man involved in a motorcycle high-speed accident.

Figures 1 and 2: Axial and oblique sagittal in the aortic arch plane images of the aorta show a intimal filling defect in keeping with minimal aortic lesion.

Figure 3 : Oblique sagittal in the aortic arch plane images of the aorta show the eventual total healing of an intimal filling defect in keeping with minimal aortic lesion.

BIBLIOGRAPHY

:Gunn ML, Lehnert BE, Lungren RS, Narparla CB, Mitsumori L, Gross JA, et al.Minimal aortic injury of the thoracic aorta: imaging appearances and outcome Radiology.Emergency SpringerLink. springer; 2014.Cullen EL, Lantz EJ, Johnson CM, Young PM.Traumatic aortic injury: CT findings, mimics, and therapeutic options.Cardiovasc Diagn Ther. 2014;4:238–44.