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Morel-Lavallée syndrome: Correlation in Clinical Diagnosis and Tomography in Closed Fractures of the Pelvis and Acetabulum at UMAE HTO 21 IMSS

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Purpose: Our objectives were to determine the prevalence of Morel-Lavallée syndrome in closed pelvis and acetabulum fractures, determine how many were diagnosed by tomography and which ones were diagnosed clinically, as well as the number of complications and the most frequent locations.

Methods: In a retrospective study we analyzed 167 pelvic CT scans with pelvic and acetabulum closed fractures that required surgical management with osteosynthesis. The CT scans were analyzed by 2 radiologists; their criterion was to see in the image a serosanguineous collection that causes a separation between the subcutaneous fascia layers, and at simple sight a bulge. There was a correlation as to which of the cases were diagnosed preoperatively by clinical exam or perioperatively.

Results: In the study 57 CT scans were diagnosed by the first radiologist of the 167 that were revised and by the second radiologist, 62 diagnosed cases. Only 3 cases were diagnosed preoperatively by clinical exam. In 8 of them were reported a large hematoma in the surgical approach. The most frequent localizations in the CT scans were 26 cases in the greater trochanter, 11 in the gluteus, 11 in the flanks, and 12 in other sites. Post-surgical infection was present in 2.8% of the undiagnosed patients and 21.05% of the Morel-Lavallée-positive cases.

Conclusion**:** Morel-Lavallé syndrome is a complex injury. CT is a simple, affordable, and efficient studio to make the diagnosis. The diagnosis must be highly suspected and intentionally sought in patients with this type of fracture, since almost a third have some degree of this condition. Its management should begin prior to definitive surgical treatment to reduce the risk of complications.