

Clinical-Medical Image

Heterotopic Ossification in a Midline Laparotomy Scar

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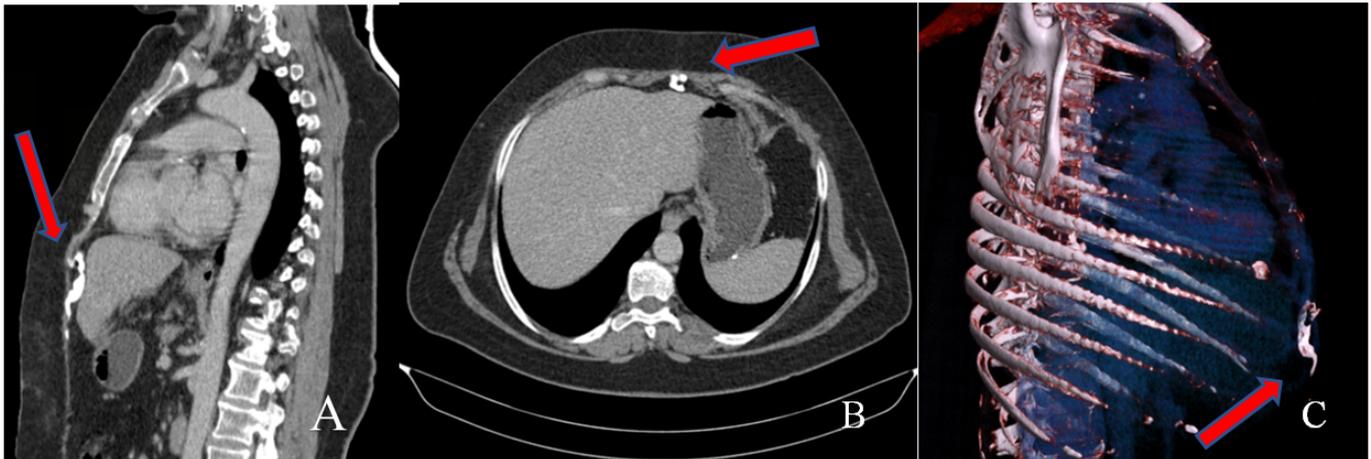


Figure 1: A) Thoracoabdominal CT scan in the sagittal, B) axial planes and C) 3D reconstruction: Vertical linear calcified lesion in the anterior abdominal wall at the level of the laparotomy scar (red arrow): Heterotopic ossification.

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We report a case of a 59-year-old woman who was referred to our radiology department for a thoracoabdominal Computed Tomography (CT) as part of follow-up assessment after a surgical resection of gastrointestinal stromal tumor performed one year previously. The patient presented no complaints. The CT scan of the abdomen showed a 6 cm longitudinal, linear, calcified lesion at the level of the incision scar on the anterior abdominal wall adjacent to the xiphoid region. This finding matched the description of heterotopic ossification, a subtype of myositis ossificans traumatica.

Heterotopic Ossification (HO), also known as myositis ossificans traumatica, is a rare and benign condition that refers to the development of mature lamellar bone at extra-skeletal sites [1]. Patients who underwent a laparotomy rarely experience this rare complication. In a survey of post-operative CT scans, Kim J, et al. discovered that 25% of all patients experiencing open abdominal surgery had HO [2]. Ectopic bone development in midline incision scars usually occurs within a few months of surgery and almost invariably within the first year. In our patient, heterotopic ossification was observed within one year of the surgical procedure [3]. The literature demonstrated a high variability in size; nevertheless, Wang et al. reported that 42% of patients had acquired heterotopic ossification measuring 10 cm in length [1]. In our case, the measurement was 6 cm. Although it is asymptomatic in most cases, it may cause discomfort and chronic abdominal pain. It is crucial to radiologically distinguish this benign entity from other postsurgical complications such as foreign object retained, abdominal wall infection, as well as from primary or metastatic bone tumor [3]. Our patient was asymptomatic and the discovery was incidental during the follow-up. Most patients with heterotopic ossification are asymptomatic and do not require medical treatment. However, if the patient exhibits symptoms, the lesion should be excised [3].

Keywords: Heterotopic ossification; Computed tomography; Anterior abdominal incision scar

Conflict of Interest

None of the authors have any conflict of interest to disclose.

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