

## Ventral Abdominal Hernia

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### Abstract

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A 63-year-old Caucasian female patient presented with redness of the both foot and lower legs, as well as edema of the left lower leg, accompanied by subjective complaints of burning. Fever was not reported. Well-circumscribed oval shaped tumor formation was revealed also on the abdominal wall, with hyperpigmented and depigmented areas on its ulcerated surface, measuring approximately 10/10cm in diameter, with soft-elastic texture on palpation. The lesion occurred in 2011, according to the patient's history. No subjective complaints were reported in association. The performed ultrasonography revealed intestinal loops in the hernial sac, without incarceration. The diagnosis of ventral abdominal hernia without mechanical ileus was made. The patient was referred for planned surgical procedure, because of her refusal on this stage. The clinical manifestation of the tumor formation on the abdominal wall, required wide spectrum of differential diagnosis, including aneurysm of the abdominal aorta, abdominal tumor, subcutaneous tumor or metastasis or hernia. In the presented cases, the abdominal wall mass was a sporadic clinical finding in the framework of the total-body skin examination in patient with erysipelas. The lack of subjective symptoms, as well as the reported history for hysterectomy and previously abscessus were not enough indicative symptoms for the correct diagnosis. The diagnosis of non-complicated hernia was made via ultrasonography, while the clinical differentiation between hernia and other life-threatening conditions as aneurysms or tumor was not possible.

A 63-year-old Caucasian female patient presented with redness of feet and lower legs, as well as oedema of the left lower leg, accompanied by subjective complaints of burning. Fever was not reported. Previous medical history showed arterial hypertension, peritonitis as a complication of Douglas abscesses, followed by a total hysterectomy and cerebellar haemorrhage. Clinical examination revealed erythematous-edematous plaque on the skin of the lower third of the left lower leg, with desquamated surface and increased local temperature. The skin of the right lower leg was also affected by erythema, desquamation and ulcerations. The skin of the feet was hyperkeratotic and macerated in the interdigital spaces, accompanied by subungual hyperkeratosis and onychodystrophy (Fig. 1a). Infiltrated erythematous plaques with maceration,

deep fissures and active peripheral margins were presented in both inguinal folds and in the intergluteal space (Fig. 1b). A suppurative abscess could be observed above rima ani. Postsurgical hypertrophic scar was observed on the medial part of the abdominal wall. A well-circumscribed oval shaped tumour formation could be observed in the abdominal wall, with hyperpigmented and depigmented areas on its ulcerated surface, measuring approximately 10/10 cm in diameter, with a soft-elastic texture. (Fig. 1c, 1d). The lesion started in 2011, according to the patient's history. No subjective complaints were reported in the association. Laboratory blood tests showed decreased levels of haemoglobin (106 g/l), hematocrit (0.3 l/l), and iron (Fe – 8.4 mmol/l). Differential blood count detected lymphocytes 0.8 10<sup>9</sup>/l, while the erythrocyte sedimentation rate was 34 mm/h and

AST- 200 IU/ml. Occult bleeding was found in faeces. Iron deficiency anaemia was also diagnosed. The rest of the blood and biochemical indicators were within the normal range. The mycological examination of the secretion of inguinal fold revealed *Candida* spp. Based on the clinical and mycological examinations, the diagnosis of erysipelas, associated with chronic *tinea cruris*, *interdigitalis*, *inguinalis*, and disseminated onychomycosis was made.



Figure 1: 1a) –Clinical manifestation of *Tinea cruris et interdigitalis*, erysipela and onychomycosis. 1b) – *Tinea inguinalis*. 1c, 1d) – Tumor-like formation on the abdominal wall, with soft-elastic texture on palpation, and depigmented ulcerations

The treatment of choice was the systemic administration of ceftriaxone 2g i.v./daily, Fluconazole 200 mg i.v./ Daily and Fraxiparin x 0.4 UI s.c. for one week, followed by Terbinafine 250 mg orally daily per for four weeks and Clindamycin 4 x 600 mg (administrated under ambulatory conditions). Local application of compresses with  $KMnO_4$  and povidone-iodine was also started. The performed ultrasonography revealed intestinal loops in the hernial sac, without incarceration. The diagnosis of ventral abdominal hernia without mechanical ileus was made. Abdominal wall hernia is a common surgically treated medical condition [1]. This disease can cause pain and other serious complications. Ventral hernias are a type of an abdominal hernia. It can be congenital or caused by a surgical incision that does not heal properly. It can be reducible when it reduces in size when a person is lying flat or in response to manual pressure [2]. If it cannot be reduced it is called

incarcerated or irreducible. Chronic inflammation and micronutrient deficiency have been reported in patients with complex abdominal hernias [3]. A wide variety of conditions may manifest clinically with a palpable or visible abdominal wall mass [3]. The key to diagnosis in most of the cases is a careful history, physical examination and imaging diagnostic procedures. The patient's gender, age, general condition and reported symptoms could also be indicative of the right diagnosis [2, 4].

In the presented case, the abdominal wall mass was a sporadic clinical finding in the framework of the total-body skin examination. The lack of subjective symptoms, as well as the reported history of hysterectomy and previously abscesses, were not enough indicative symptoms for the correct diagnosis. The diagnosis of a non-complicated hernia was made via ultrasonography, while the clinical differentiation between a hernia and other life-threatening conditions as aneurysms or tumour was not possible.

The relationship between the occurrence of a ventral hernia and similar entities, diseases of the skin possibly related to the impairment of the regional immune system is still controversial [5]. This case will hopefully open a wider interdisciplinary research on the occurrence of modifications of the regional (or organ) immune system in the everyday clinical practice.

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