CASE REPORT

Intravascular papillary endothelial hyperplasia (Masson’s tumor) – rare localization in forefoot area. Case report

Wewnątrznaczyniowa brodawkowata hiperplazja komórek endotelialnych (guz Massona) – rzadka lokalizacja w obrębie przodostopia. Opis przypadku

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Abstract

Introduction. Masson’s tumor is benign change on vascular basis located in skin and subcutaneous tissue of limbs, corpus, neck and head. In this report we present a case of rear tumor location in the foot of 30 year old male. Atypical nad recurrent clinical history of the tumor, non traumatic origin, clinical manifestation suggesting ganglioma, unconsistent imagining and insufficient biopsy results can lead easy to wrong diagnosis. Awerness of Masson tumor location on the foot can help orthopaedic surgeon to make faster decision of surgical treatment.

Key words: Masson’s tumor, foot

Streszczenie

Guz Massona jest łagodną zmianą o podłożu naczyniowym występującą w skórze i tkance podskórnej kończyn, tułowia, szyi i głowy. W niniejszej pracy przedstawiamy przypadek rzadkiej lokalizacji guza w obrębie stopy u 30-letniego mężczyzny. Występujący nietypowy i nawrotowy przebieg kliniczny związany niezwiązany z urazem, badanie kliniczne sugerujące bardzo często ganglion, niejednoznaczność badań obrazowych oraz biopsyjnych mogą prowadzić do łatwej omyłki diagno stycznej. Znajomość występowania w tej okolicy guza Massona może ułatwić ortopedzie podjęcia decyzji o wczesnym leczeniu operacyjnym.

Słowa kluczowe: guz Massona, stopa, przodostopie

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Introduction

Masson's tumor is a benign vascular lesion located in the skin and subcutaneous tissue of the limbs, trunk, neck and head [1,2]. Intracranial localisation [3], as well as apperance in the liver [4], kidneys [5] and gastrointestinal tract [6] was reported. Masson was the first who described the tumor in 1923 as a benign, neoplastic, intraevenous epithelial cells growth [7]. Nowadays the name: intravascular papillary endothelial hyperplasia (IPEH) for lesion is commonly used [8]. Its character is benign but it is often misdiagnosed as angiosarcoma and Kaposi sarcoma which both have more aggressive clinical manifestation [8,9]. There is a report describing rapid growth of the Masson tumor which can imitate developing of malignant lesion [10]. Although, the tumor can be present in theory in every vessel, localization within the upper limbs, especially in hands is most common and most often described [2,11,12]. There are few reports concerning localisation within the foot and ankle. Analysis of this publications can not point out the specific part of the foot that could be considered as a typical area of tumor manifestation [13-17].

Case report

Patient 30 year old male, kaukasan, reported to the Orthopaedic Outpatient Clinic due to lump in first interdigital space of the left foot which he noticed several weeks earlier. Lump was localised on base of the second toe (Fig. 1). The tumor was painful and was limiting patient sport activity as well as wearing shoes with narrow toe bowes. According to the man, similar situation took place 1.5 year earlier, but in that time lump disappeared spontaneously. Patient had no chronical condition and did not undergo any surgical procedures. No allergies was reported. He runs 5 to 10 km regularly 2-3 times a week. Orthopaedic examination revealed tumor in the area of proximal phalanx of the second toe in the dorsal side of first interdigital space of the left foot. Diameter of the lesion was 2 cm. Acute nad severe pain was noticed during palpation. Tumor had solid consistency similar to ganglion. Localisation near extensor digitorum tendons was also the reason that ganglion was taken into consideration as one of the most likely diagnosis. Lump was not attached to the skin, bone and tendons. Easy movement could be noticed during palpation. Gait pattern was correct nad no limping could be seen. There was no blood supply and innervation disorders concerning toes and rest of the foot. There was no further pathological findings during patient clinical evaluation. Routine X-rays of the left foot did not reveal any changes in bone structure. During ultrasound imagining tumor with diameter of 2.5 cm filled with semiliquid content was found. It was very similar to ganglion ultrasound image. No tissue connection could be noticed. After 2 weeks from initial consultation a simple surgical excision was performed. In local anastesia (ultrasound guided ankle block) a straight skin incision in first interdigital space was made just above the lesion. Underneath thin layer of subcutaneous tissue a grey – navy blue tumor with diameter of 2.5 cm was fund (Fig. 2). The consistency was soft. Meticulous preparation did not revealed any vascular connections. Leasion was excised with healthy tissue margin. During intraoperative cross section a mass of blood clot was present inside the tumor. Typical wound layer closure was made. Compression dressing was applied. Weight bearing in regular comercial shoe was recommended after acute pain dissapear. During follow up visit after 2 weeks from the surgery good wound healing was found. Patient walked with full weight bearing as was advised after procedure. Histopatological examination revealed typical representation of IPEH (Mason tumor). After 12 weeks patient was pain free and returned to running.

Fig. 1. Noticeable tumor on the medial side of the second toe basis.

Fig. 2. Intraoperative view. Notice dark color of the tumor.
Discussion

Localisation of Masson’s Tumor in the foot is very rear. A few case reports described manifestation of the lesion around the ankle [13], dorsal and plantar aspect of metatarsals [14,15]. In the forefoot region IPEH was found in interdigital space [16], on plantar surface of the foot at the level of second metatarsophalangeal joint [17], on the dorsal surface of the first metatarsophalangeal joint [18] and in the toes [19]. In patogenesis of Masson’s tumor it is postulated that blood clot which is forming after trauma is the initial factor of tumor growing. In presented case there was no history of trauma, what confirms previous observations in literature [18]. Ultrasound and X-rays does not contribute any important informations to diagnosis. Moreover, ultrasound images look like those in ganglion. Keeping in mind that localisation of IPEH could be also typical for ganglion, diagnosis of the last one is very probable. Tumor biopsy with fluid aspiration is insufficient and is associated with fast recurrence of tumor mass and accompanying symptoms [17]. In differentiation diagnosis it should be taken into consideration benign lesions like angioma, angiomatosis bacularis or pyogenic granuloma. But many authors underline importance of differentiation with malignant, aggressive tumors like angiosarcoma or Kaposi sarcoma [17]. It can prevent unnecessary big surgical procedures. Masson’s tumor is benign lesion, but due to its macroscopic similarity with angiosarcoma every exised specimen should be very careful assessed during histopathological analysis. Among typical blood clots, there are atypical, hiperplastic endothelial cells, which can be present in malignan lesions. Unusual and recurrent course, not related to trauma, clinical findings which are more typical for ganglion, ambiguity of imaging studies and biopsy can lead to diagnostic mistake. In this kind of clinical situatation it seems to be rational fast and radical removal of the lesion with careful patomorologic examination.

References