SCHWANNOMA OF THE SMALL INTESTINAL MESENTERY IN A 38-YEAR-OLD WOMAN

Nerwiak osłonkowy (*schwannoma*) krezki jelita cienkiego u 38-letniej kobiety

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Abstract

Schwannomas (also known as neurinomas or neurilemmomas) are generally benign, slow-growing tumours arising from the sheath of peripheral nerves. They occur very rarely within the mesentery of the small intestine. This study presents the case of a 38-year-old woman who was admitted to hospital following an epileptic seizure and was found to have elevated liver enzymes. An incidental tumour of the small-intestinal mesentery was identified and, after surgical excision, was histopathologically confirmed to be a benign schwannoma.

Streszczenie

Guzy o typie nerwiaka osłonkowego (*schwannoma*, *neurinoma*, *neurilemmoma*) to powoli rosnące nowotwory wywodzące się z osłonek nerwów obwodowych. Bardzo rzadko rozwijają się w krezce jelita cienkiego. W pracy opisano przypadek 38-letniej kobiety przyjętej do szpitalnego oddziału ratunkowego z powodu napadu drgawek z możliwym urazem głowy oraz podwyższonymi parametrami wątrobowymi, u której wykryto przypadkowo guz krezki jelita cienkiego, który po wycięciu okazał się łagodnym nowotworem – *schwannoma*.

Keywords: neurilemmoma; neurinoma; unknown intraperitoneal tumour; unknown mesenteric tumour; mesenteric schwannoma

Słowa kluczowe: nerwiak osłonkowy; *neurinoma*; nieznany guz wewnątrzotrzewnowy; nieznany guz krezki jelita; *schwannoma* krezki jelita

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Introduction

Schwannoma (also known as neurinoma or neurilemmoma) is one of the most common peripheral nerve sheath tumours. In addition to schwannomas, this group includes neurofibromas, perineurinomas, granular cell tumours, and malignant peripheral nerve sheath tumours [1, 2]. Schwannomas are benign, well-circumscribed tumours arising from a clonal population of Schwann cells. They typically grow slowly and often undergo cystic and degenerative changes [1]. Their morphological appearance can vary widely, and malignant transformation is extremely rare. These tumours may occur spontaneously or in association with syndromes such as neurofibromatosis type 2 (NF2), Carney complex, and schwannomatosis, as well as sporadically in areas previously exposed to radiotherapy (even up to 50 years after treatment). A key element in the pathogenesis of schwannoma is the loss of merlin function resulting from genetic alterations of the *NF2* gene on chromosome 22 or secondary to merlin inactivation [2].

Schwannomas rarely arise within the central nervous system (CNS) (6.7% of all CNS tumours), visceral organs, or the gastrointestinal tract (primarily in the stomach – 0.2% of all gastric tumours) [1–3]. Autopsy studies indicate that the prevalence of sporadic central schwannomas is approximately 4.5% in the elderly population. In contrast, primary involvement of motor roots and the sympathetic nervous system is uncommon. Deeply located retroperitoneal and mediastinal schwannomas may reach considerable size before producing symptoms, typically due to local compression or bone erosion, as seen in giant sacral schwannomas [2].

The extremely rare occurrence of schwannoma in the mesentery of the small intestine can also pose significant diagnostic challenges [4].

Aim of study

The aim of this study was to describe the case of a 38-year-old woman with an incidentally detected schwannoma located in the small intestinal mesentery. The patient was admitted to hospital on an emergency basis due to a seizure with a suspected head injury and elevated liver function parameters.

Case report

A 38-year-old woman was admitted to the emergency department (ED) of a regional hospital following an epileptic seizure with a possible head injury. A few days prior, the patient had self-discontinued alprazolam, which she had been taking for many years.

A head computed tomography (CT) scan performed in the ED revealed no focal lesions, intracranial haemorrhage, or traumatic bone changes. However, features of mild cerebral cortical atrophy were noted.

Laboratory tests revealed moderately elevated liver aminotransferase levels with a normal bilirubin concentration. During history taking, the patient reported that she had not monitored her liver function tests while taking alprazolam. She denied any history of acute or chronic liver disease, and reported no use of oral contraceptives.

Abdominal ultrasonography (USG) showed features of generalised patchy hepatic steatosis, with no pathology of the gallbladder or bile ducts. A cystic lesion measuring 41 × 36 mm was identified in the right ovary, along with a mass measuring 52 × 37 × 39 mm, likely located in the mesentery of the small intestine. A CT scan was recommended; the patient underwent internal medicine and neurological consultations and was subsequently admitted to the surgical department. Triple-phase CT of the abdomen and pelvis revealed a well-circumscribed, hypodense tumour in the small bowel mesentery at the level of the mid-abdomen/lower abdomen, measuring 52 × 42 × 55 mm. The lesion was partially cystic, with mild contrast enhancement and calcifications in its inferior portion (Fig. 1). Differential diagnosis with echinococcosis was suggested, along with histopathological verification after complete tumour resection.

Additionally, a 42-mm cyst was described in the region of the right adnexa, with a suggestion for assessment by transvaginal ultrasound. Gynaecological consultation indicated that only periodic monitoring of the right ovarian cyst in an outpatient setting was necessary.

The patient was scheduled for expedited laparoscopic resection of the small-intestinal mesenteric mass. During the procedure, conversion to laparotomy was required due to difficulties in dissecting the lesion, which was ultimately removed in its entirety. The postoperative course was uneventful, and normalisation of liver enzyme levels was observed. The patient was discharged home in good general condition.

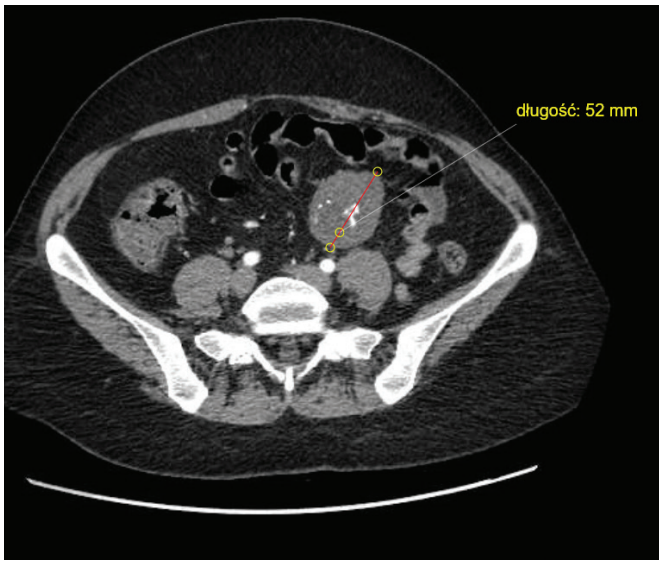

Figure 1. Tumour appearance on abdominal computed tomography

Histopathological examination confirmed the diagnosis of schwannoma. The resection margin was the tumour's pseudocapsule.

At the follow-up visit in the oncology outpatient clinic, the patient was in good general condition, and the surgical wounds were healing normally. No features suggestive of von Recklinghausen disease were present. She was scheduled for periodic oncological follow-up and remains under the care of both neurological and gynaecological outpatient clinics.

Discussion

Incidental findings are quite commonly identified in patients evaluated in emergency settings. Approximately 16% of reports from CT and other imaging studies performed in emergency departments in the United States include descriptions of incidental findings. The most frequently reported organ is the ovary (n = 214, 42% [5]), which was also observed in the case described here (one of two findings). Other studies indicate that the overall incidence of any incidental findings in CT scans performed on emergency department patients is approximately 31% [6].

Benign tumours such as schwannomas (also known as neurinomas or neurilemmomas) are rarely located in the retroperitoneal or intraperitoneal space and are mostly detected incidentally. They very rarely occur in the mesentery of the intestine, where they may exhibit long, slow, asymptomatic growth. At the diagnostic stage, these lesions often raise suspicion of a malignant process [4].

In 1998, Ramboer et al. described a case of a benign schwannoma incidentally detected in the mesentery of the small intestine. The authors highlighted that magnetic resonance imaging (MRI) provides additional value compared to CT, allowing more precise assessment of tumour location [7].

Similarly, Murakami et al. described a case involving a well-circumscribed mass with a cystic component lo-

cated near the duodenum. Diagnosis was based on contrast-enhanced CT, followed by gadolinium-enhanced MRI, and histopathological examination confirmed the lesion as a schwannoma [4].

Another case reported in the literature involved a 56-year-old woman with chronic abdominal pain, in whom USG and subsequent CT scan revealed a massive retroperitoneal tumour in the region of the right adrenal gland. Laboratory tests showed no hormonal activity. Although adrenal carcinoma was initially suspected, histological examination following adrenalectomy combined with tumour resection confirmed a benign schwannoma [8].

Maezawa et al. reported the case of a 32-year-old woman with a retroperitoneal tumour detected incidentally during ultrasound. CT and MRI revealed a 95-mm mass with a cystic component. Following resection, histological examination confirmed the diagnosis of schwannoma [9].

Although benzodiazepines (BZDs) are generally considered safe, their potential role in tumour induction remains unclear. Clonazepam, lorazepam, alprazolam, bromazepam, zolpidem, and zopiclone have been associated with an increased risk of malignant neoplasms. Exposure to BZDs increases the overall risk of cancer by up to 21%. Specifically, this may involve cancers of the brain (98%), oesophagus (59%), pancreas (41%), bladder (39%), prostate (36%), large intestine (25%), liver (18%), lungs (10%), and other malignancies (27%) [10].

Whether the occurrence of the schwannoma in the described case was related to long-term alprazolam use remains uncertain. Without imaging studies from earlier treatment periods or prior to treatment initiation, it is impossible to demonstrate such a correlation.

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