

A Case of Incidental Pelvic Schwannoma

Barry P Mellermier

Institutional affiliations

Department of General Surgery and Surgical Oncology, Palmetto Health-USC Medical Group, USA

Corresponding author

Barry P Mellermier, Department of General Surgery and Surgical Oncology, Palmetto Health – USC Medical Group, Columbia, USA,

E-mail: barryp_mellermier@uscmcd.sc.edu

Received Date: September 22 2021

Accepted Date: September 24 2021

Published Date: October 28 2021

Abstract

Introduction: On one-third to one-fifth of trauma CT scans, incidental findings are discovered. They are most commonly discovered on CT scans of the abdomen/pelvis in female patients over the age of sixty. Multiple studies show that the majority of those findings are benign and do not necessitate immediate intervention. Several patients were discharged without being informed of their findings or receiving adequate follow-up care.

Case description: A 28-year-old male was bestowed as a trauma alert after a change automobile collision. He was evaluated in accordance with ATLS protocol and had CT scans of his head, neck, chest, abdomen, and pelvis. Because imaging revealed a fracture of his C1 vertebrae, the patient was surgically placed in a poplar collar and admitted to the hospital. The CT scan also revealed Associate in Nursing incidental eleven cm nine. 5 cm 12.6 cm solid mass with calcification and haemorrhage displacing the bladder and thus the right external vein This mass was subjected to a CT target-hunting diagnostic test before being sent for pathological analysis. The results showed a spindle cell lesion that was positive for S-100 but negative for desmin and vimentin. The call was created to respect the mass's massive size and the possibility of preventative or compressive symptoms. A schwannoma was found on pathology.

Conclusion and Discussion: Our case describes a rare benign tumour discovered by chance during a trauma work-up. Schwannomas account for five of the benign soft tissue neoplasms, most of which appear as solitary, slow-growing lesions in patients aged twenty to forty years elderly. Unless their size causes compression of other structures, they are rarely symptomatic. On imaging, they appear to be heterogeneous encapsulated lots with chronic and cystic cavitations. On histologic examination, they will frequently stain positive for S-100.

Keywords

Schwannoma; Immunohistochemical stains; Peripheral nerve sheath tumor; computerized axial tomography

Introduction

Computed tomography (CT) has become the gold customary within the identification of injury in trauma patients. an outsized variety of trauma patients bear CT scans of the top, neck, chest, abdomen, and pelvis for initial analysis. These scans not solely demonstrate traumatic injury, however studies have shown that thirty fifth to forty fifth conjointly reveal incidental findings [1-3]. Puluska et al., printed a study in 2007 involving 991 patients, that incontestible that the incidence of those findings was a lot of common in ladies older than age forty and a lot of doubtless found on CT scans of the abdomen and pelvis [3]. Barrett et al., printed the same review in 2009 with comparable results [4]. Review of the literature shows that the bulk of those findings are either anatomic variants or benign pathologic findings [1,5].

A significant observation close these incidental findings is that the lack of documentation relating to these results throughout their hospital keep and lack of acceptable follow-up when discharge. A retrospective study by Munk et al., enclosed 211 patients, and of these, solely fifty seven patients (27%) had incidental findings noted within the discharge outline, documentation of any work-up, or sequent referral [2]. Devine et al., conjointly showed that solely thirty first of patients had acceptable documentation of Associate in Nursing incidental finding on diagnostic/surveillance imaging [6]. we tend to gift a remarkable case of a girdle schwannoma discovered as Associate in Nursing incidental mass on police work CT scan of the abdomen and pelvis when a automobile collision. The patient was brought up surgical medical specialty with sequent diagnostic work-up Associate in Nursinging treatment whereas being treated as an inmate for his traumatic injuries.

Case Presentation

A healthy 28-year-old male patient bestowed as a trauma alert when a change automobile collision on an area interstate. He was assessed in step with advanced trauma life support protocol and stabilised by the trauma service. He later on underwent a CT scan of the top, neck, chest, abdomen, and pelvis. Imaging studies discovered a fracture of his C1 vertebrae. The patient was placed in Associate in Nursinging poplar collar and admitted to the hospital for medical specialty observation and therapy.

The CT scan of the abdomen Associate in Nursinging pelvis showed an incidental eleven cm × nine.5 cm × 12.6 cm solid mass containing areas of calcification and hemorrhage displacing the bladder and therefore the right external vein (Figure 1). The patient denied any compressive symptoms as well as nephropathy or disorder. He conjointly denied any motor or sensory deficits in his lower extremities. Surgical medical specialty was consulted, and a CT-guided diagnostic test of this mass was preformed and sent for pathological analysis. The diagnostic test results incontestible a spindle cell lesion, that was positive for S-100 and negative for desmin and vimentin (Figure 2). when an intensive discussion with the patient and therefore the surgical medical specialty team, call was created to respect the mass supported its massive size, questionable cancer identification, and potential for future preventative or compressive symptoms.

Bilateral ureteral stents were placed by medical specialty at the start of the case. Associate in Nursing searching incision was performed utilizing a of these tumors isn't helpful because of the high false positive rate secondary to cellular atypia and poor sampling from chronic tissue. Core biopsy is that the most well-liked methodology for sampling because it allows examination of the tumour design and interrelationship of its cells. The specimen is additionally amenable to special testing or staining that aids in getting Associate in Nursing correct identification [9].

Benign peripheral nerve sheath tumors will be differentiated by their robust staining of S-100 macromolecule on immunohistochemical (IHC) staining. S-100 macromolecule is found in cells of neural crest origin, as well as each histologist and melanocytic cells [10]. in an exceedingly study of thirty patients from Japan with peripheral nerve sheath tumors, all benign tumors were diffusely positive for S-100 macromolecule, whereas malignant tumors were focally positive or negative for this macromolecule.

Schwannomas habitually gift as solitary, painless, slow-growing plenty that represent around five-hitter of all benign soft-tissue neoplasms. they're generally diagnosed in patients age twenty to forty years recent [8]. the foremost common locations for these neoplasms area unit the lower midplane abdominal incision. it had been densely adherent to the proper common vena, that was fastidiously freed by a mix of blunt and sharp dissection, permitting the mass to be aloof from the pelvis intact. The ureters were known and palpated to verify continuity at the conclusion of the case. He was discharged on post-operative day six once come back of intestine operate. His follow-up appointments were organized for his arrival place capital of Massachusetts, Massachusetts. His pathology report showed a thirteen.2 cm × 10.5 cm × 8.0 cm spindle cell lesion most in line with Schwannoma (Figure 4).

Histological staining was powerfully positive for S100, however negative for CD-117, DOG-1, SMA, and desmin.

Discussion

Peripheral nerve sheath tumors of the pelvis area unit comparatively uncommon and barely malignant while not associate degree underlying diagnosing of monogenic disease [7]. The benign set of those tumors will be divided into neurofibromas and schwannomas [8]. identifying between benign and malignant peripheral nerve sheath tumors will be troublesome. Benign lesions seldom manufacture pain at rest within the lower extremities or medical specialty deficits. Benign lesions generally exhibit central sweetening and target sign in resonance imaging, that is unusual with malignant variations. Fine needle aspiration cerebellopontine angle, posterior nerve roots, flexor muscle surfaces of the extremities, neck, bodily cavity, and retroperitoneum [8].

They are microscopically comprised of histologist cells characterised by elongated spindle-like nuclei organized into dense (Antoni A) areas or loose, hypocellular (Antoni B) areas. The peripheral nerve of origin doesn't penetrate the substance of the neoplasm. Multiple sorts of chronic changes could also be found inside schwannomas together with nuclear pleomorphisms, xanthomatous changes, vascular hyalinisation, cystic changes, necrosis, and mitotic activity [11,12]. These patients area unit usually well unless these tumors become massive enough to

compress adjacent structures. Commonly, they're amenable to surgical excision as a result of they seldom invade the underlying nerve fibers [8].

Conclusion

Incidental findings, like the benign girdle schwannoma discovered in our patient, have become a lot of prevailing because the use of CT scan for the diagnosing of traumatic injuries will increase. Studies have incontestable that an oversized range of those findings area unit unmarked and not documented, leading to moral and medical-legal ramifications for suppliers [1-3]. thanks to the potential for damage if left untreated, several hospital systems area unit developing a system for electronic case history documentation and coordination of follow-up with acceptable specialists. This improved documentation permits the patient to be established with the proper surgical specialty team capable of providing the suggested police work and subsequent treatment. this might ultimately decrease health care prices by decreasing redundancy in follow-up and unneeded imaging studies. any analysis into the foremost effective technique for this method is secured.

References

1. Chandoke RK, Verma AK, Kaur O, Yadav N, Agarwal S, et al. (2013) Immature teratoma with somatic tumor-type sarcoma: A case report. *Indian Journal of Clinical Practice* 24: 674-677.
2. Kangana S, Monal T, Sanjay D, Ramesh D (2016) Mature cystic teratoma of the uterine surface and ovary with adenocarcinoma of the endometrium: An unusual case scenario and literature review. *Middle East Journal of Cancer* 7: 229-233.
3. Papadia A, Rutigliani M, Gerbaldo D, Fulcheri E, Ragni N (2007) Mature cystic teratoma of the uterus presenting as an endometrial polyp. *Ultrasound Obstet Gynecol* 29: 477-478.
4. Iwannaga S, Shimada A, Hasuo Y, Yoh S, Miyajima S, et al. (1993) Immature teratoma of the uterine fundus. *Kurume Med J* 40: 153-158.
5. Ben Ameer EYM, Mohtaram A, Kharmoum J, Aaribi I, Kharmoum S, et al. (2013) Primary immature teratoma of the uterus relapsing as malignant neuroepithelioma: Case report and review of the literature. *Case Rep Oncol Med* 2013: 971803.
6. Ansah-Boateng Y, Wells M, Poole DR (1985) Coexistent immature teratoma of the uterus and endometrial adenocarcinoma complicated by gliomatosis peritonei. *Gynecologic Oncology* 21: 106-110.
7. Gomez-Lobo V, Burch W, Khanna PC (2007) Nonpuerperal uterine inversion associated with an immature teratoma of the uterus in an adolescent. *Obstet Gynecol* 110: 491-493.
8. Kamgobe E, Massinde A, Dismas M, Ndaboine E, Rambau P (2016) Uterine myometrial mature teratoma presenting as a uterine mass: A review of literature. *BMC Clinical Pathology* 16: 5.
9. Jan G, Pavel D (2017) Mature teratoma of the uterine corpus: A

case report. *Cesk Patol* 53: 97-99.

10. Newsom-Davis T, Poulter D, Gray R, Ameen M, Lindsay I, et al. (2009) Case report: Malignant teratoma of the uterine corpus. *BMC Cancer* 9: 195.
11. Akai M, Isoda H, Sawada S, Izumi M, Hideo K, et al. (2005) A case of struma uteri. *Am J Roentgenol* 185: 216-218.
12. Karla TS, Marcelo VN, Lucila SSR, Giovanni DF, Samantha CSC, et al. (2014) Immature uterine teratoma associated with uterine inversion. *Rare Tumors* 6: 5530.