doi: 10.5505/sakaryamj.2012.35119

Intraabdominal Schwannoma: Case Report

İntraabdominal Schwannoma: Olgu sunumu

Adem Aslan[1], Olcay Eser[1], Dursun Ali Sahin[2], Murat Cosar[1], Onder Sahin[3]

[1] Afyon Kocatepe University, Faculty of Medicine, Department of Neurosurgery, Afyonkarahisar, Turkey

[2] Afyon Kocatepe University, Faculty of Medicine, Department of General Surgery, Afyonkarahisar, Turkey

[3] Afyon Kocatepe University, Faculty of Medicine, Department of Pathology, Afyonkarahisar, Turkey

Abstract

Object: Schwannomas are benign and slow growing tumors of peripheric nerves. They frequently seen in the spinal canal or expand through the intervertebral foramen as hour glass shape. They rarely seen in the thorax or posterior abdominal wall.
Case: A 49 year-old female patient admitted to our clinic with a complaint of lower back pain and bilateral lower extremity pain. Her neurological examination revealed laseque (+) at 30 degree for the right lower extremity and dorsoflexion force of the right extensor hallucis longus muscle was 3/5. Lomber MRI of the patient showed 3x2.5 cm mass in the anterior of the left L5 vertebra corpus without godolinium enhancement, right L4-5 disc protrusion and spinal canal norrowing at the L3 and L4 vertebrae levels. Anterior subumblical median approach was performed to the patient and the mass which was located retroperitoneally at the anterior of left L5 vertebra corpus and push the left iliac artery and vein to the anterior. The mass was excised totally and the histopathological examination was schwannoma. Postoperative course of the patient was uneventful. The patient was discharged with a plan of operation for the disc herniation in the second seance.
Conclusion: Anterior subumblical median approach is a safely method because of the containing the anatomical structures for the neuronal originated masses which are located in the anterior of L5 vertebra corpus.

Keywords: Peripheric nerve, intra-abdominal schwannoma

Aplication: 08.08.2011 **Accepted:** 28.10.2011

Özet

Amaç: Schwannoma 2. en sık periferik sinir tümörüdür. Yavaş büyüyen selim tümörlerdir. Tamamen spinal kanal içinde ya da kum saati şeklinde intervertebral foramenden dışarı çıkarak, nadiren de thorax veya posterior abdominal duvar kitlesi olarak kendini gösterir. Posterior abdominal duvar yerleşimli bir schwannoma olgusu sunuldu.
Olgu: 49 yaşında bayan hasta bel ve her iki bacak ağrısı şikayetiyle başvurdu. Nörolojik muayenesinde laseque (30 degree) +/ -, sağ başparmak dorsifleksiyonu 3/5 kas gücü olarak tespit edildi. Çekilen lomber MRI'da sol L5 vertebra korpusu anteriorunda 3x2.5 cm ölçülerinde düzgün kenarlı, belirgin kontrast tutmayan kitle, sağ L4-5 prodrude disk hernisi ve L3, L4 seviyesinde spinal dar kanal tespit edildi. Öncelikle kitleye yönelik cerrahi planlandı. GAA supine pozisyonunda, göbek altı median insizyonla katlar geçilerek batına girildi. Explorasyonda sol L5 korpusu anteriorunda, sol iliak arter ve iliak veni anteriora itmiş retroperitoneal kitleye ulaşıldı. İliak arter ve ven mediale ekarte edilerek kitleye ulaşıldı. Sinir kılıfı açılarak lastik kıvamındaki düzgün kenarlı kitle total olarak çıkarıldı. Komplikasyon olmadı. Postoperatif ek bir defisit gözlenmedi. Patoloji sonucu schwannoma olarak rapor edildi. Spinal dar kanal ve lomber disk hernisine yönelik 2. bir operasyon planlanarak hasta taburcu edildi.
Sonuç: L5 korpusu anteriorunda yerleşmiş nöronal kaynaklı tümörlerde göbek altı median yaklaşımı kolay ve çevre anatomik yapılara hakimiyet açısından güvenli bir yoldur.

Anahtar Kelimeler: Perferik sinir, intra-abdominal schwannoma

Başvuru Tarihi: 08.08.2011 **Kabul Tarihi:** 28.10.2011

Yazışma Adresi/Corresponding to: Dr.Adem Aslan, Afyon Kocatepe University, Faculty of Medicine, Department of Neurosurgery, Afyonkarahisar, Turkey
GSM: 0 505 5836364, e-mail: ademaslan@aku.edu.tr

Introduction

Schwannomas are found most commonly in cranial and peripheral nerves, and occurrence in the retroperitoneum is rare, comprising approximately 3% of all schwannomas[1,2,3,4]. Schwannomas are almost invariably slow growing, non-aggressive neoplasms. On gross appearance, schwannomas are usually solitary, well circumscribed, encapsulated tumours[2]. Schwannomas are often found incidentally, or present with vague, non-specific symptoms. It is important for the radiologist to consider the diagnosis of benign schwannoma when presented with a retroperitoneal or pelvic mass, to avoid unnecessary surgery, because these lesions can be managed conservatively[1,2].

We present a case of intraabdominal retroperitoneal schwannoma, that was incidentally discovered in the patient by an lumbosacral MRI examination due to lower back pain and bilateral lower extremity pain.

Case Report

A 49 year-old female patient admitted to our clinic with a complaint of lower back pain and bilateral lower extremity pain. Her neurological examination revealed lasegue + at 300 for the right lower extremity and dorsoflexion force of the right extensor hallucis longus muscle was 3/5. Lomber MRI of the patient showed 3x2.5 cm mass in the anterior of the left L5 vertebra corpus without godolinium enhancement, right L4-5 disc protrusion and spinal canal norrowing at the L3 and L4 vertebrae levels. Anterior subumblical median approach was performed to the patient and the mass which was located retroperitoneally at the anterior of left L5 vertebra corpus and push the left iliac artery and vein to the anterior.

The mass was excised totally. Second operation was performed for lumbar disc herniation and stenosis. Histopathological examination of intraabdominal mass was schwannoma. Postoperative course of the patient was uneventful.

Discussion

Intraabdominal schwannomas are rare neoplasms with characteristic imaging features, typically presenting as large ovoid or spherical masses with smooth, well-defined borders, which do not invade or obstruct adjacent structures. They are usually found in a lower retroperitoneal or presacral location. Schwannomas frequently undergo cystic change and occasionally extend through and expand a spinal nerve root exit foramen. If these features are recognized, there should be a high level of suspicion for schwannoma. This diagnosis is important in order to avoid unnecessary intervention[1,2,3].

Figure 1: Sagittal MRI in posterior abdomen

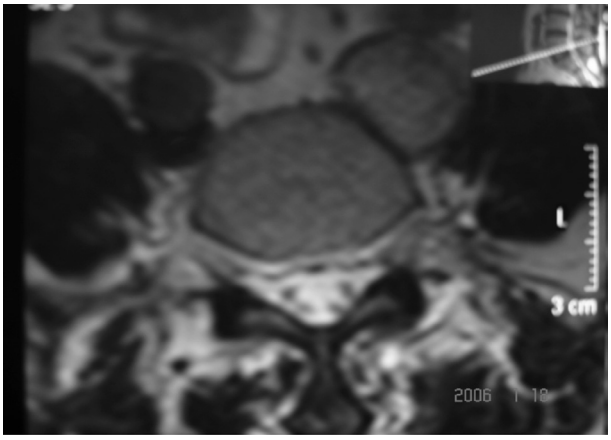

Figure 2: Aksial MRI in posterior abdomen

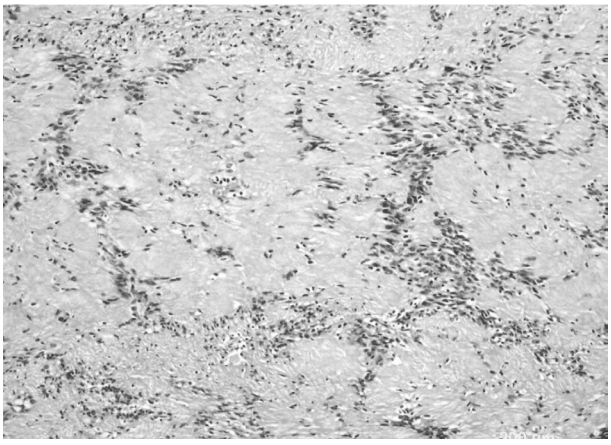

Figure 3: Microscopic view showing benign schwannoma cells

Schwannomas are almost inevitably benign but may very rarely undergo malignant transformation. Retroperitoneal schwannomas are usually detected preoperatively via cross-sectional imaging. However, preoperative diagnosis is difficult because none of these modalities have shown any pathognomonic features unique to this tumor [1,2].

Conclusion

We presented a rare case of intraabdominal schwannoma. Preoperatifely diagnose of intraabdominal schwannomas are difficult. Radiologic features are usually nondiagnostic. The treatment is complete surgical excision.

References

1. Goh B, Tan YM, Chung YF, et al. Retroperitoneal schwannoma. The American J Surg 2006;192:14–18.
2. Hughes MJ, Thomas JM, Fisher C, et al. Imaging features of retroperitoneal and pelvic schwannomas. Clin Radiology 2005;60:886-893.
3. Inekuchi T, Takiuchi H, Moriwaki Y, et al. Retroperitoneal ancient schwannoma presenting as an adrenal incidentaloma: CT and MR findings. Magnetic Resonance Imaging 2006;24:1389–1393.
4. Tahir ZM, Fatımi SH, Enam SA. Ancient schwannoma presenting as a thoracic mass. Surg Neurol 2007;68:534-536.