

# Hibernoma of the Spermatic Cord in a Child: Case Report

## Bir Çocukta Spermatik Kord Hibernoması

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**ABSTRACT** Hibernomas are rare benign neoplasms derived from the remnants of fetal brown adipose tissue, seen mainly in adults. Most of them are located in areas that normally include brown-fat remnants. Although these tumors are considered benign and malignant transformation has not been reported, they tend to grow into large sizes. If a hibernoma is detected during inguinoscrotal approaches, it should be excised totally because of the risk of growth. To date, recurrence has not been described following complete excision, which is therefore recommended as the treatment of choice. We would like to present an 11-month-old child with hibernoma of the spermatic cord which was surgically treated. One child presenting such a lesion has previously been reported in the literature.

**Key Words:** Adipose tissue, brown; lipoma; liposarcom; spermatic cord; child

**ÖZET** Hibernomalar çoğunlukla yetişkinlerde görülen ve fetal kahverengi yağ dokusu kalıntılarından gelişen nadir görülen benign tümörlerdir. Bunların çoğu normalde kahverengi yağ kalıntılarını içeren alanlarda ortaya çıkarlar. Bu tümörlerin benign olarak kabul edilmesi ve malign transformasyonun bildirilmemiş olmasına rağmen, büyük boyutlara ulaşma eğilimindedirler. Herhangi bir inguinoscrotal yaklaşım sırasında tespit edilirlse, büyüme eğilimlerinden dolayı tamamen eksize edilmelidirler. Bugüne kadar, tam eksizyonu takiben nüks bildirilmemiştir ve bu nedenle tercih edilen tedavi şeklidir. Biz cerrahi olarak tedavi edilen spermatik kord hibernoması olan 11 aylık bir çocuk ile ilgili bir vaka sunmak istiyoruz. Çocuklarda böyle bir lezyonu tarif eden bir olgu daha önce de bildirilmiştir.

**Anahtar Kelimeler:** Yağlı doku, kahverengi; lipoma; liposarkom; spermatik kord; çocuk

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**H**ibernomas are rare benign neoplasms derived from the remnants of fetal brown adipose tissue, seen mainly in adults.<sup>1-4</sup> In English literature, only three cases of hibernomas in the spermatic cord and inguinal area have been reported.<sup>5,7,8</sup> One child presenting such a lesion has previously been reported in the literature.<sup>5</sup>

## CASE REPORT

In 2001, an 11-month-old boy who had a right-sided inguinal hernia and a left-sided cyst of the spermatic cord was admitted for surgical treatment. Physical examination revealed typical findings of the spermatic cord hydrocele on the left side and inguinal hernia on the right side. At the opera-

tion, a nodule was found on the spermatic cord, located within the distal end of the hydrocele of the cord. Macroscopically, the nodule was round in shape, had a size of 0.5x0.5 cm, and was brown in color. The nodule was removed completely and histological examination showed a tumor composed predominantly of large multivacuolated, brown fat cells with a granular cytoplasm (Figure 1). The patient is currently healthy with no recurrence.

## DISCUSSION

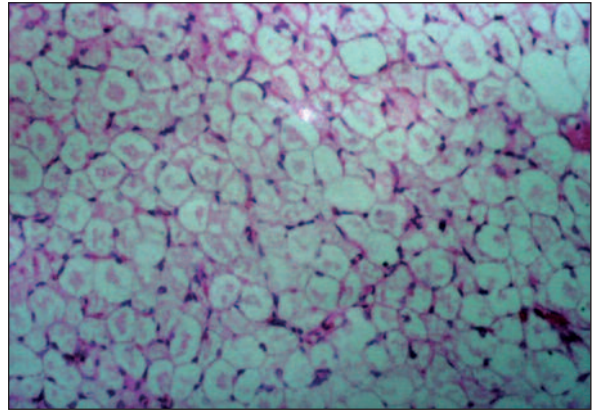
Brown fat is distributed mainly in the interscapular area of the back, mediastinum and retroperitoneum. After the first 8 weeks of human life, the percentage of brown fat progressively diminishes, so that the brown fat accounts for only 1% of the total body mass in adults.<sup>6</sup>

Hibernomas are extremely rare benign lipomatous tumors of brown-fat origin, seen mainly in adults. Most of them are located in areas that normally include brown-fat remnants. Three cases of hibernomas in the spermatic cord and inguinal area have been reported.<sup>2,4,5</sup> In children there is one report about hibernoma which is located in the spermatic cord. It must be assumed that brown fat may migrate with the testis, from the mesonephric fold adjacent to the kidney.<sup>5</sup>

Although these tumors are considered benign and malignant transformation has not been re-

ported, they tend to grow into large sizes.<sup>8</sup> If a hibernoma is detected during inguinoscrotal approaches, it should be excised totally because of the risk of growth. To date, recurrence has not been described following complete excision, which is therefore recommended as the treatment of choice.

In children, most testicular tumors are benign, especially before puberty. A testis-sparing procedure should be performed in children with a palpable testicular mass and negative tumor markers.<sup>9</sup> A hibernoma can be diagnosed on the basis of gross physical characteristics and microscopic findings. Excisional biopsy is indicated to differentiate hibernoma from well-differentiated liposarcoma, lipoblastoma and lipoma.<sup>2</sup>



**FIGURE 1:** A tumor composed predominantly of large multivacuolated, brown fat cells with granular cytoplasm (Hematoxylin and eosin staining, x200).

(See for colored from <http://tipbilimleri.turkiyeklinikleri.com>)

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