CASE REPORT

Metastatic Seminoma Testis Presenting as a Lump in the Right Iliac Fossa

Md. Mustafizur Rahman Khan

Abstract:

A 30 years old young man presented with a painful lump in the right iliac fossa and fever, and he was diagsosed to have appendicular lump. After surgery, it was found to be a metastatic seminoma. Later, exploration of the right testis revealed an occult seminoma. Seminoma is the commonest (40%) germ cell tumour of the testis and occurs predominantly at 35-40 years of age. Most common presentation is painless slowly growing scrotal mass. It usually metastasizes late commonly through lymphatic routes that run along testicular artery in the aortic and para-aortic group of lymph nodes, and metastasis through hematogenous route is uncommon. Occasionally, secondary retroperitoneal deposits may be palpable, especially just above the umbilicus. This case is presented as it is not a common presentation of seminoma testis.

Introduction:

Testicular cancer, although an uncommon malignancy, it is the most common cancer in men between the ages 20 and 35 years[1,2,3,4]. Most testicular tumours are of germ cell origin which comprises about 95 % of all the tumours of the testis[2]. Germ cell tumours are further classified as seminomas and non-seminomas[2,5]. Seminoma is the commonest germ cell tumour (40%) and occurs predominantly in the 35-40 years age group people[1,6]. Seminoma arises from seminiferous tubles and is of relatively low grade malignancy and usually diagnosed in early stage[6,7,8]. It usually metastasizes late, commonly through lymphatic routes and metastasis through haematogenous route is uncommon.

Most common presentation is painless scrotal mass and on physical examination it cannot be separated from the testis. Ten percent of the patients may have lax secondary hydrocoele[1,9].

Occasionally, secondary retroperitoneal deposits may be palpable, especially just above the umbilicus. At times, an enlarged supraclavicular node is the presenting sign[1]. One third of the patients may present in atypical way.

Here a case is elaborated where it presented as painful lump in the right iliac fossa mimicking appendicular lump without any testicular enlargement.

Case report:

Mr. AAF, a 30 years old businessman from Khulna was admitted with history of fever for one month with pain and a lump in the right iliac fossa. He was reasonably well one month back after that he developed pain in the right iliac fossa which was dull aching in nature, the pain was spontaneous and was not aggravated by any kind of movement. Then he noticed a

Associate Professor, Department of Surgery, Holy Family Red Crescent Medical College & Hospital, Dhaka.

lump which gradually increased during this period of time. Along with this pain he had low grade fever initially, later increasing to high temperature. During this time he consulted a local doctor who diagnosed it as a case of appendicular lump and treated accordingly. But inspite of all possible treatment given, his sign and symptoms did not improve. So, he was referred to a tertiary level hospital. When examined, the patient looked very sick and toxic with high fever and mild anaemia. On local examination, a smooth surfaced lump with well defined margin in the right iliac fossa measuring about 8 cm x10 cm was found. It was fixed and intraperitoneal. Right testis was normal but there was small lax hydrocoele. Left testis was smaller in size and there was a history of trauma in this testis. So, it was diagnosed as appendicular lump. Conservative treatment with Inj.Ceftriaxone, Inj.Gentamycin, analgesics and parentral fluid was given. But instead of improvement the patient's condition remained unchanged with persistent low grade fever. So, it was decided to do a laparotomy.

The laparotomy was done with right paramedian incision. On opening the abdomen, a lump was found in the right iliac fossa which was separated from the caecum. Appendix appeared to be normal. The tumour mass involved the right and posterior parietal wall. It was firm to hard and incorporated the right common iliac vessels near its bifurcation. Tumour was removed carefully leaving behind some part of its capsule. The main mass was removed. Liver, spleen and peritoneum was found normal in naked eye observation. Iliac and aortic groups of lymph nodes were examined and they were not enlarged. One lymph node from iliac region and another from aortic region were removed for histopathological examination.

Later, the histopathological report of the main mass revealed the presence of metastatic seminoma. The lymph nodes were not involved. So, the testes were explored for the primary source. Testicular ultrasonography revealed multiple small space occupying lesions (SOLs) in the right testis and also mild hydrocoele. Incisional biopsy from the right testis did not show any pathology. Consequently, orchidectomy was done and its histopathological examination revealed occult seminoma testis. Alpha feto protein and β-HCG were assessed and were found normal. The CT scan of the abdomen and skiagram of chest were also found normal. Later, the patient received radiotherapy and cisplatin based chemotherapy. After one year of follow up he is still in good health without any recurrence.

Discussion:

Germ cell tumours present most commonly (90%) in the testis and only infrequently in the extra-gonadal sites (10%). The most common extragonadal site (in decreasing frequency) are the retroperitoneum, mediastinum and pineal gland. Seminoma testis is the most common germ cell tumour which usually remains confined to testis and metastasizes late. This patient presented with a tender lump in the right iliac fossa with history of fever. So, the case was misdiagnosed as an appendicular lump. But after exploration it was found to be a retroperitoneal mass and later histopathologically a metastatic seminoma. Retroperitoneal metastasis in right iliac region near the bifurcation of right common iliac vessels is very rare. Seminoma testis usually metastasize through lymphatics to the aortic and paraaortic lymph nodes above the level of umbilicus. Occasionally, secondary retroperitoneal deposits may be palpable, especially just above the umbilicus on the side

of the tumour[1]. There are also reports of metastatic seminoma in urinary bladder. Lymphatics from the medial side of the testis may run with the artery to the vas and drain into a node at the bifurcation of the common iliac artery[1]. But here the lymph nodes were not involved. Exact mechanism of metastasis to the right iliac region is difficult to explain. The same mechanism that causes metastasis to other retroperitoneal sites may be involved. In this case, when histopathological report showed metastatic seminoma then the attention was turned towards testis. Ultrsonography of testis revealed multiple tiny SOLs in the testis. Later, open biopsy confirmed the diagnosis. So, many patients presumed to have a primary retroperitoneal germ cell tumour may have occult germ cell tumours of the testicle. This possibility should be evaluated with testicular ultrasound, especially when the retroperitoneal tumour is predominantly one sided.

Ten percent of the patients may have lax secondary hydrocoele[1,8]. The mild hydrocoele was initially ignored as the testis appeared normal on palpation. It is curious that, despite the fact that the testis is usually easily palpable, a testicular tumour often escapes detection until after it has metastasized[1].

Pain in the mass was possibly due to infiltration of the tumour to the surrounding tissue or haemorrhage within the tumour. Fever was also possibly due to tumour necrosis factor released from the tumour. One third of testicular tumours present in atypical way. Management of seminoma is predominantly radiotherapy, but in advanced stage, cisplatin based chemotherapy is advocated. In this case, the patient was treated with radiotherapy followed by chemotherapy, after surgery.

In conclusion, it may be said that seminoma of the testis can metastasize early even when it is not clinically palpable. It can be misdiagnosed on the first clinical assessment. Though the term 'occult' is not familiar in case of seminoma testis, one has to think about this term. Any hydrocoele must be evaluated by USG to detect any underlying pathology. Seminoma can metastasize in the retroperitoneum. The most common errors in the diagnosis result from the presence of pain (which may result from haemorrhage into the tumour), hydrocoele (a not uncommon accompaniment of tumour) and a history of trauma that may merely bring the swelling to attention. Campaign can be started to encourage males to perform regular testicular self examination in the hope that tumours would be detected earlier[1].

References:

1. Fowler CG. Testis and scrotum. In: Russel RCG, Williams NS, Bulstrode CJK (editors). Bailey & Love's Short Practice of Surgery, Twenty fourth edition. London: Arnold Publishers, 2004. pp -1403.

2. Maddaus MA, Lukitch JD. Chest wall, lungs, mediastinum and pleura. In: Brunicarde FC, Andresh DK, Billia TR, et al (editors). Schwartz's Pricniples of Surgery, Eighth edition. New York: The McGraw-Hill Companies, 2005. pp - 1538.

3. Jemal A, Murry T, Samuels A, et al. Cancer statistics, 2003. C A Cancer J Clin 2003; 53: 5.

4. Prow DM. Germ cell tumours: Staging, prognosis and outcome. Semin Urol Oncol 1997; 16: 82.

5. Warde P, Jewett MA. Surveillance for stage I testicular seminoma. Is it a good option? Urol Clin North Am 1998; 25: 425.

6. Ritche AWS. The male external genitalia. In: Cuschieri A, Steele RJC, Moosa AR (editors). Essential Surgical Paractice. Higher Surgical Training in Genreal Surgery, Fourth edition. London: Arnold Publishers, 2002. pp - 1299-1313.

7. Anonymous. Urological surgery. In: Forrest APM, Carter DC, Macleod IB (editors). Principles and Practice of Surgery, Third edition. London: Churchill-Livingstone, 1995. pp - 544-545.

8. Stewart LH. Urological surgery. In: Garden OJ, Bradbury AW, Forsythe J (editors). Principles and Practice of Surgery, Fourth edition. London: Churchill-Livingstone, 2002. pp - 545-547.

9. Williams RD, Cooper CS, Donovan JF. Urology. In: Way LW, Doherty GM (editors). Current Surgical Diagnosis and Treatment, Eleventh edition. New York: The McGraw-Hill Companies, 2003. pp - 1070-1072.