Parasite infection presenting as a scrotal subcutaneous mass

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1. Introduction

We performed an outpatient mass excision on a 40-year-old male who visited our hospital due to a right scrotal subcutaneous mass that had been present for about 3 months. The pathological report showed parasite infection. Based on shape and size of the parasites in the mass, toxocariasis with eosinophilia granuloma is diagnosed. Based on this case, it is important and necessary for clinicians to perform surgical excision of scrotal subcutaneous mass and check the pathology report.

2. Case report

A 40-year-old male visited our hospital because of a right scrotal subcutaneous mass that had been present for about 3 months. Physical examination revealed a 3 × 3 × 1 cm, non-tender, right scrotal subcutaneous mass. Excision of the subcutaneous mass was performed under local anesthesia. Pathological examination showed the presence of a parasite infection (Fig. 1) and eosinophilic granuloma (Fig. 2). We forwarded the pathological slide to the Department of Parasitology of the Taipei Medical University to establish the diagnosis. Based on the shape and size of the parasites in the mass, the parasites were identified as the larvae of *Toxocara* (Fig. 1).

We referred the patient to the Departments of Gastroenterology and Hepatobiliary Disease and Ophthalmology for further examinations, including an abdominal ultrasound, a fecal parasite examination and an eye examination. No anomalies were found. We inquired about the patient’s dietary customs, daily routine and travel history. We found that the patient had a dog and a cat and that he had often held them in his arms. The patient was treated with oral antiparasitic medication and to date has not experienced any recurrence or further discomfort.

3. Discussion

There are a number of reports on parasite infections that have presented as a skin lump or subcutaneous mass, but reports on parasite infections that present as a scrotal subcutaneous mass are relatively rare. When the pathological report on a subcutaneous mass indicates a parasite infection, the patient, when he returns for follow-up, must be asked about his dietary customs, daily routine and travel history. Other departments (e.g., parasitology and/or gastroenterology) must be asked to assist in the diagnosis and to help in further examinations. If necessary, additional tests for feces, and blood, and/or imaging examinations must be performed.

In this case, a diagnosis of toxocariasis was made by the Department of Parasitology of the Taipei Medical University. The appropriate inquiries revealed that the patient...
had a dog and cat and that he had often held them in his arms. This may have been the source of his infection. After surgery, the patient received oral antiparasitic medication, and he no longer keeps either a dog or a cat. To date, he has not experienced any signs of recurrence or further discomfort. It is difficult to distinguish *Toxocara canis* from *Toxocara cati* according to the pathological images of the patient. Fortunately, both the *T. canis* and *T. cati* infections can be treated effectively with the same oral antiparasitic medication. Further biochemical (e.g., ELISA) examination of parasite may be unnecessary.

Without a pathological examination, the parasite infection would have been overlooked. The experience of this case has told us that clinicians should perform surgical excision of a scrotal subcutaneous mass, and always check the pathological report.

4. Conclusions

Parasite infections presenting as a scrotal subcutaneous mass are relatively rare. In such cases, a close cooperation between departments, including pathology, parasitology and gastroenterology, is required, so that further appropriate examinations and treatment are provided for the patient. Surgical excision with pathological examination is necessary for any patient with a scrotal subcutaneous mass.

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References