Case Report
Papillary Adenocarcinoma of Rete Testis Mimics Inflammatory Lump: A Case Report

Che-An Wu,1 Yung-Hsiang Chen,2,3 Kee-Ming Man,4 Jui-Lung Shen,5 and Wen-Chi Chen2,3

1 Department of Urology, Lee’s General Hospital, Da-Chia, 43748 Taichung, Taiwan
2 Graduate Institute of Integrated Medicine, College of Chinese Medicine, China Medical University, Taichung 40402, Taiwan
3 Department of Urology and Department of Medical Research, China Medical University Hospital, Taichung 40402, Taiwan
4 Department of Anesthesiology, Tungs’ Taichung Metroharbor Hospital, Taichung 43344, Taiwan
5 Department of Dermatology, Taichung Veterans General Hospital, Taichung 40705, Taiwan

Correspondence should be addressed to Wen-Chi Chen, wgchen@mail.cmu.edu.tw

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1. Introduction
Papillary adenocarcinoma of rete testis is an extremely rare extratesticular neoplasm with only a few sporadic reports in the literature [1]. The clinical manifestations of this tumor may be variables and similar to most frequently seen benign extratesticular lesions that make the diagnosis may be delayed [2]. Due to its rarity, the treatment is therefore uncertain. We reported a young patient with papillary adenocarcinoma of rete testis whose clinical manifestations mimicked an inflammatory lump. We also reviewed the literatures and reported its outcome.

2. Case Report
A 30-year-old male patient came to outpatient department presented with a swelling and tender left scrotal lump for 2 weeks. There were associated symptoms of dysuria and frequency in urination within these days. He did not have fever nor body weight loss. Physical examination revealed a hard nodule at the head of left epididymis with severe tenderness. Ultrasonography of the scrotum revealed a 1.6 cm hyperechoic lesion over left epididymis (Figure 1). The initial diagnosis was left epididymitis with an extratesticular lesion. He underwent a partial epididymectomy with removal of the extratesticular lesion in a transverse left scrotal incision under spinal anesthesia after failed medical treatment for 1 week with vibramycin and acetaminophen. During operation, this hard mass was measured about 8 mm located on the head of epididymis with another papillary solid nodule about 7 mm protruded just between the left epididymis and testis. There was a swollen left epididymis found during operation.

Microscopically, there were hyperchromatic cuboid and columnar cells with papillary protrusions which fulfill the center hilus of testis (Figures 2 and 3). There were some calcifications embedded. The part of epididymis appeared normal with few microinfiltrations to the head of epididymis. The mass was identified to be papillary adenocarcinoma of rete testis according to the Nochomovitz and Orenstein’s classifications [3]. Serum α-fetoprotein (AFP) and β-human chorionic gonadotropin (βHCG) were within normal limits one week after partial epididymectomy. Computerized tomography (CT) of the abdomen revealed no visible lymph node in the retroperitoneal space or pelvic cavity. He further underwent a left inguinal radical orchietomy 1 month after the first operation. The final pathological report revealed
no residual tumor in testis, epididymis, or the stump of the dissected spermatic cord. There was no further adjuvant treatment such as radiotherapy or chemotherapy. He had been followed by serum AFP, βHCG, and abdominal CT annually without evidence of tumor recurrence for at least 48 months.

3. Discussions

To our best knowledge, papillary adenocarcinoma is a rarely extratesticular malignancy with only about 60 cases reported in the literatures [1, 4]. It tends to be found in the aged patients with the peak incidence of 70 years (ranged from 17 to 91 years) [1, 4, 5]; only 6 patients were younger than 30 years old [4, 5]. The most reported cases were white and occasionally seen in Africans and oriental persons.

The exact etiology of this tumor remains unknown. The most common symptoms of papillary adenocarcinoma included scrotal mass, indurations, pain, and swelling, which mimicked an inflammation. The misleading symptoms may delay the diagnosis and adequate treatment. It is difficult to make differential diagnosis with other extratesticular lesions because adenocarcinoma of rete testis may present with epididymitis, cryptorchidism, hydrocele, or inguinal hernia [6–10]. There is no specific or sensitive marker including APF and βHCG to detect the tumor earlier. The diagnosis of adenocarcinoma of rete testis was often made by the pathologist after surgery. There are 5 criteria for the diagnosis of a primary tumor of the rete testis proposed by Nochomovitz and Orenstein: (1) absence of histologically similar extrascrotal tumor, (2) tumor centered on testicular hilus, (3) morphology incompatible with any other type of testicular or paratesticular tumor, (4) demonstration
of a transition between the unaffected rete testis and the
tumor, and (5) a predominantly solid appearance [3]. Our
pathological pictures fulfill these criteria.

The prognosis of papillary adenocarcinoma seemed poor
in the earlier reports. Cancer cells may invade locally,
metastasize to the para-aortic and iliac lymph
nodes, or hematogenously spread to the sites of lung and
bone [1]. The involvement of pelvic lymph node had been
reported [3]. The treatment of choice is surgery which
includes radical orchectomy and retroperitoneal lymph
node dissection (RPLND). Chemotherapy and radiotherapy
only have a limited benefit to patients’ survival time [3].

These were 40∼50% patients died within the first year after
diagnosis [3, 5, 7]. Three- and five-year disease-free survival
was 49% and 13%, respectively [7]. Only 37% of the reported
patients had an average 8-month tumor-free survival after
diagnosis [3]. Unlike other malignancies, the stage cannot
affect the prognosis or the choice of further treatment. Ac-
cording to the study of Sanchez-Chapado et al., the size of the
tumor was the only independent predictor for the survival
time [7]. Therefore, prognosis seems not affected by the
methods of treatment.

Usually, the patient was a sexual active young man with
symptoms of inflamed left scrotum and lower urinary tract
symptoms which were considered as a common epididymitis
and urinary tract infection. The scrotal tumor was relatively
small and was difficult to be differentiated with a swollen
epididymis. It was lucky to identify the tumor from ultra-
sonography in a small size and early stage. After radical
orchietomy, the patient had at least 48-month tumor-free
period. Good prognosis was probably due to the fact that
our patient was young with a small and early-stage tumor.
Although Sanchez-Chapado et al. suggested the benefit of
RPLND [7], we did not perform RPLND to this patient
because of a clear-cut end of the spermatic cord and his
sexual active age. Sympathetic nerve fiber has a risk to be
disrupted during this procedure. We sug-
gested close followup by serial examinations, and the result
was good till now.

In conclusion, papillary adenocarcinoma of rete testis is
a rare extratesticular malignancy which may have a diverse
prognosis in different age. No definite predictor and tumor
marker can be used to define its prognosis and method of
treatment. A better prognosis may be reached if diagnosis
and surgical were conducted treatment earlier.

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