Varicocele Presenting with Ipsilateral Renal Cell Carcinoma - Is it a Late Symptom?

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Varicocele is the most common surgically correctable cause of infertility. It mostly affects left side of young adult. The new onset of symptomatic varicocele in elderly patient, or on right side only in patient at any age, should be considered as a possible evidence of tumor thrombi in renal vein or inferior vena cava. Renal cell carcinoma (RCC) is potential to involve venous system and to result in acute varicocele. We reviewed 73 male patients of RCC who had been diagnosed and treated at our hospital in the past 5 years. There were 4 (5.9%) cases, 3 in left and 1 in right, who initially called at genitourinary department for the symptoms of varicocele. They all had significant dilatation of pampiniform plexus without Valsalva maneuver in both supine and standing positions. Ipsilateral RCC was discovered by ultrasound, computerized tomography, or magnetic resonance imaging. Radical nephrectomy was performed as standard procedure to all patients and the varicocele resolved immediately after surgery. Mass effect resulting in external compression of the testicular vein was considered a possible mechanism. The age-associated incidence of varicocele and RCC is discussed for to identify a critical point in practical evaluation.

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Key words: varicocele, carcinoma, renal neoplasm.

INTRODUCTION

Renal tumors account for 3% of adult cancers, and renal cell carcinoma (RCC) constitutes approximately 85% of all primary malignant renal tumors in the USA[1]. The optimal treatment of RCC is early detection and radical resection of the tumor. Patients with organ-confined lesions usually have excellent result after standard treatment with radical nephrectomy. Despite advancement in diagnostic tools, such as computerized tomography (CT) and magnetic resonance imaging (MRI), the first impression of diagnosis depends on the judgment of practical physician. The clinical presentations of RCC include gross or micro-hematuria (60%), pain and/or palpable mass (40%) and metastatic disease (25-30%). However, this typical triad occurs in only 2-10% of patients [2,3]. Delayed diagnosis resulting in poor prognosis is not uncommon.

Varicocele is common in young adult (10-15%), and is especially often (30%) in male infertility group [4,5]. It is well-recognized as a rare (2-3%) presentation of RCC [1,6], although sporadic cases have been reported [7,8]. While most patients can be treated with simple surgery, rare cases with underlying pathologic lesion require further evaluation and management.

In the past 5 years, we had 4 cases of RCC (3 in left and 1 in right) who presented with acute onset of varicocele. The incidence was 5.9% in 73 male patients with RCC, or 0.55% in 748 varicocele cases, and was possibly underestimated. To identify the characteristics of RCC in these patients, the clinical presentation, tumor size, cell type, and pathologic stage were reviewed. We also reviewed all varicocele cases in the same period to compare the onset age and involved side of RCC and varicocele.

MATERIALS AND METHODS

From January 1991 to December 1995, totally 73 male patients with RCC and 748 patients presenting with varicocele had been treated at our section. Of the 73 male cases with RCC, 4 had varicocele as their chief complaint initially (Table 1). Retroperitoneal tumor was first suspected because of late onset in 3 cases and right-sided involvement only in one case. Only one patient experienced one episode of gross hematuria as a com-