

## PARACOCCIDIOIDOMYCOSIS OF THE MALE GENITAL TRACT. REPORT OF ELEVEN CASES AND A REVIEW OF BRAZILIAN LITERATURE

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### SUMMARY

Eleven cases of involvement of the genital tract in paracoccidioidomycosis were collected in a retrospective study of the clinical records of 683 patients seen in Porto Alegre, Rio Grande do Sul, Brazil. These cases are herein summarily reported. Eighteen similar cases were gathered in review of the Brazilian literature. Obtained data are discussed.

**KEYWORDS:** Paracoccidioidomycosis; *Paracoccidioides brasiliensis*; Orchitis; Epididymitis; Prostatitis.

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### INTRODUCTION

The genital tract is affected in patients with the disseminated chronic form of paracoccidioidomycosis (PCM), although, in reported series of necropsied patients, it has been the less frequently involved body system<sup>1,3,10,12,16,20</sup>. Furthermore, very few reported Brazilian series of cases of the disease referred the observation of genital lesion<sup>2,18,19</sup>. Reports on genital PCM has also been scarce in Brazilian literature. With the exception of a series of seven cases<sup>7</sup>, in which two of them were previously reported<sup>22</sup>, the remaining eleven dealt with a single patient<sup>4,6,8,9,11,13-15,17,21, 24</sup>.

In a retrospective review of the clinical records of 683 patients with PCM, seen in Porto Alegre, Rio Grande do Sul, during the period 1966-1998, eleven cases of male genital involvement were found. A summarized clinical history of them will be presented and discussed.

### CASES REPORT

The 11 patients, were classified into three groups according to the clinical presentation: A) the genital manifestations were the main complaints (Cases 1 and 2); B) a past history suggestive of PCM preceded the genital complaints (Cases 3-9), and C) genital lesions appeared after treated PCM (Cases 10 and 11). All 11 patients presented lung infiltrates in the chest X-rays suggestive of PCM. The 11 cases are summarized in Table 1. Additional detailed information is provided for 4 representative cases.

#### Group A: Cases in which the genital manifestations were the main complaints

##### Case 2

Since 4 months ago, this 67 year-old man presented with a tumefaction of the right testicle. The physical examination revealed an enlarged and hardened testicle and epididymis, a fistulous tract, draining a purulent secretion, in the right scrotum, ulcerated lesions in the intergluteal fold and edema of the right thigh. Suspected to have a neoplasia, the patient was submitted to surgery. Histologic examination of sections of testicle stained by H&E showed granulomatous reaction; methenamine silver stain revealed the characteristic cells of *Paracoccidioides brasiliensis*.

#### Group B: Cases in which a past history suggestive of PCM preceded the genital complaints

##### Case 5

During the period 1971-1977, a 38 year-old man was treated for tuberculosis in spite of no acid fast bacilli in the sputum. In 1978 he was admitted with cough, purulent expectoration, hemoptysis, weight loss, an ulceration on the tongue and right scrotal swelling. He complained also of difficulty to talk and to walk. Findings on physical examination were: ematiation; ulceration of the tongue; tumefaction and signs of epididymitis at right. *P. brasiliensis* was disclosed in the sputum, in the

**Table 1**  
Profile of male patients with genital paracoccidioidomycosis

Case	Age (yr.)	Clinical presentation	ID test	Basis of diagnosis	Other diagnostic source
1	30	Prostatic hyperplasia	ND	Histology of prostate	
2	67	Tumefaction of the right testicle	ND	Histology of testicle	
3	34	Scrotal swelling	+	Histology of testicle	Sputum
4	66	Tumefaction of left testicle	+	Histology of testicle	Tongue ulceration
5	38	Scrotal swelling with ulceration	+	Histology of testicle	Tongue ulceration, sputum
6	52	Penile lesion	ND	Exudate from glans ulceration	Esophagic ulceration
7	47	Thickening of both epididymis	+	Histology of epididymis	Tongue ulceration, Sputum
8	34	Penile lesion	+	Exudate of penile ulceration	Sputum
9	45	Scrotal swelling	ND	Histology of epididymis, spermatic cord, and testicle	Laryngeal lesion
10	50	Prostatic hyperplasia	ND	Prostatic secretion	Sputum (*)
11	34	Scrotal swelling and penile nodular lesion	+	Histology of testicle	Laryngeal lesion

(\*) Association with tuberculosis (acid-fast bacilli positive); ID, immunodiffusion; ND, not done

exudate of the tongue ulceration and in cut sections of the testis. An immunodiffusion test (ID) revealed specific bands. Two years later the patient presented with involvement of the SNC; he was treated with cotrimoxazol for 11 years with good results.

#### Case 9

One year ago, a 45 year-old man was treated for tuberculosis because he presented signs and symptoms of a respiratory infection. Later on he presented dysphagia and dysphonia. Six months ago the patient was submitted to an orchiectomy and the excised right testis was preserved in formalin and kept with him. Endoscopic examination of the larynx showed a granulomatous lesion. *P. brasiliensis* was detected in cut sections of the laryngeal lesion. For this reason it was requested the preserved material, in which the fungus was also detected (epididymis, spermatic cord, and testis).

#### Group C: Cases in which genital lesions appeared in patients that had been treated for a proved PCM

#### Case 11

In 1976, this patient, a 34 year-old man, received a diagnosis of PCM based on histologic examination of a biopsy of a laryngeal lesion. He was treated with sulphadiazine until 1979. In 1980 he presented a tumefaction of the scrotum and sexual dysfunction. Physical examination revealed a penile nodular lesion and tumefaction (5 cm) of the right

**Table 2**  
Frequency of involved organ/sites in male genital PCM

Organ/site	No. of cases	References
Epididymis	7	7 (cases 1, 4, 5), 11, 13, 14 (present case 7)
Epididymis and testicle	4	15, (present cases 2, 5, 9)
Epididymis, testicle and scrotal pouch	1	9
Epididymis, testicle and prostate	1	7 (case 6)
Prostate	6	4, 7 (case 7), 8, 22, (present cases 1 and 10)
Prostate and testicle	1	7 (case 2)
Testicle	5	5, 7 (case 3), (present cases 3, 4, 11)
Penis	3	17, (present cases 6 and 8)
Scrotal pouch	2	6, 24

testicle. *P. brasiliensis* was detected in the biopsied specimen of the testicle. ID positive.

## DISCUSSION

Twenty nine cases of paracoccidioid lesions in the genital tract has been reported in Brazil: 11 cases of the present series; 7 of a reported series<sup>7</sup>; and 11 single published cases<sup>4,6,8,9,11,13-15,17,21,24</sup>. The patients were males aged 30 to 72 years.

The involvement of the genital tract in PCM occurs in the disseminated chronic form of the disease. In this clinical form multiorganic involvement has been the rule. However, sometimes, the clinical manifestations result from a single affected organ<sup>5</sup>.

Symptoms and signs of paracoccidioid lesions of the male genital tract may be the main complaint that led patients to seek medical care<sup>4,6,9,13,14,17, 24</sup> (present cases 1 and 2), exceptionally the single complaint<sup>5,7</sup> (case 7).

With one exception<sup>5</sup>, manifestations of the male genital lesions occur concomitantly<sup>4,6,7</sup>(case 1),<sup>14,15,17,24</sup> or after<sup>7</sup>(cases 2-5),<sup>8,9,11,13</sup>(present cases 3-11) involvement of extragenital organs, commonly the lung.

The frequency of involved sites of the male genital tract is shown in Table 2.

The diagnosis has been obtained usually by histologic examination of excised or biopsied organ<sup>4,5,7,8,11,13-15,21</sup>(present cases 1-5,7,11); pus from a draining fistula<sup>9</sup>, exudate from ulceration of the penis<sup>17</sup>(present cases 6 and 8) or of scrotal pouch<sup>6,24</sup>, and prostatic secretion<sup>(present case 10)</sup>.

Paracoccidioidomycosis affects more rarely females than males among adults (1:27.3). The disease usually is observed in women with signs and symptoms of menopause<sup>23</sup>.

## RESUMO

### Paracoccidioidomycose do trato genital. Relato de onze casos e revisão da literatura brasileira

Onze casos de envolvimento do trato genital na paracoccidioidomycose foram arrolados em estudo retrospectivo das fichas clínicas de 683 pacientes vistos em Porto Alegre, RS, Brasil. Estes casos são sumariamente relatados. Dezenove casos similares foram colhidos em revisão da literatura brasileira. Os dados obtidos são discutidos.

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