MALIGNANT TUMORS OF THE URETHRA are not common and the occurrence of melanoma in this region is even more unusual. Only 9 cases of melanoma of the urethra, 3 in the male and 6 in the female (Table I), have been recorded in the literature. The condition has been found, as a rule, in elderly persons. The average age in the reported cases was sixty-five years, the youngest patient being thirty-three and the oldest seventy-six years of age.

The following case was observed on the Urological Service of the Peiping Union Medical College Hospital.

**CASE REPORT**

C. C. S., a Chinese male seventy years of age, was admitted to the Urological Service of the Peiping Union Medical College Hospital on Dec. 8, 1936, with an ulcerative lesion at the urethral meatus. The lesion appeared about a year before admission as a symptomless growth protruding from the meatus. In the three months prior to the entry into the hospital, it had become black in color, indurated in consistency, elevated toward the periphery, and ulcerated on the surface. At the same time the patient noticed narrowing and deviation of the urinary stream as well as a certain degree of dysuria.

The findings on general physical examination were essentially normal except for the presence of senile cataract and mild hypertension. Pigmented lesions were not found in
other regions of the body. The urethral meatus was practically obliterated by an indurated, ulcerative, non-tender mass about 1.2 cm. in diameter (Fig. 1). The margin of the lesion was slightly rolled and sharply circumscribed; the base was moist, granular, and dusky purplish black in color. The induration extended posteriorly along the course of the urethra for a distance of about 1 cm. (Fig. 2). The urinary stream was divided into two or three parts taking different directions. The regional lymph nodes were not enlarged. Roentgen examination revealed no metastatic lesion in the chest. Clinically, except for the color, the lesion was not unlike a chancre. Epithelioma of the penis also was considered. Pathological examination of the biopsy specimen showed melanoma.

In view of the nature of the growth excision of the tumor with a wide margin of normal tissue was advised. Partial amputation of the penis was carried out on Dec. 10, 1936. The patient made an uneventful recovery. Study of the specimen confirmed the previous findings (Figs. 2, 3 and 4). About ten days after the operation a course of roentgen ir-

![Image](https://via.placeholder.com/150)

**FIGS. 3 AND 4. PHOTOMICROGRAPHS OF TISSUE SHOWING IRREGULAR POLYGONAL AND FUSIFORM TUMOR CELLS AND CLUMPS OF MELANIN GRANULES IN THE CREVICES OF THE TISSUE AS WELL AS IN THE TUMOR CELLS. X 115 AND X 565**

radiation to the regional lymph nodes was commenced. Follow-up examination showed that the patient had remained well and free from recurrence or metastasis two years after the completion of treatment.

**DISCUSSION**

Tumor, dysuria, lateral deviation of the urinary stream, and a foul discharge constitute the salient features in the clinical picture of urethral melanoma. The presence of a tumor may be noted by the patient or disclosed only at examination. Urinary symptoms are not constant. Dysuria due to either pain or obstruction is a common complaint. Lateral deviation of the urinary stream is another troublesome symptom. Female patients often complain of a foul or bloody discharge, which may lead one to suspect the presence of a lesion in the genital tract.

The observed examples of melanoma of the urethra have usually been
### Table I: Recorded Cases of Urethral Melanoma

<table>
<thead>
<tr>
<th>Case</th>
<th>Author Year</th>
<th>Sex and age</th>
<th>Symptomatology and clinical course</th>
<th>Treatment</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frick and Hall 1906</td>
<td>M33</td>
<td>&quot;Chancre.&quot; Amputation six months after onset. Metastasis to lymph nodes, viscera and skin</td>
<td>Penile amputation; two months before death</td>
<td>Died 18 months after appearance of tumor</td>
<td>Had been treated as a chancre for six months</td>
</tr>
<tr>
<td>2</td>
<td>Albrecht (Wien) 1910</td>
<td>M59</td>
<td>Tumor in the prostatic urethra. Metastasis to viscera, bones, and thyroid</td>
<td>—</td>
<td>—</td>
<td>Autopsy finding</td>
</tr>
<tr>
<td>3</td>
<td>Campbell and Pein 1936</td>
<td>M76</td>
<td>A hard lump at peno-scrotal junction and some urinary difficulty. Duration one year. Generalized lymph node metastases</td>
<td>Penile amputation and roentgen irradiation</td>
<td>Died seven months after penile amputation</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Reed 1896</td>
<td>F64</td>
<td>Dysuria, hematuria, and a tumor at the urethral meatus for eight months</td>
<td>Urethrectomy</td>
<td>Died of a large mass in abdomen seven months after operation</td>
<td>Death probably due to abdominal metastasis</td>
</tr>
<tr>
<td>5</td>
<td>Mundel 1901</td>
<td>F</td>
<td>Tumor projecting from urethral orifice</td>
<td>—</td>
<td>Died of pneumonia eight days after operation</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Kustner 1912</td>
<td>F</td>
<td>—</td>
<td>—</td>
<td>Original text not available</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Saenger 1924</td>
<td>F72</td>
<td>A tumor at the urethral orifice associated with burning sensation during urination and lateral deviation of urinary stream, seven months</td>
<td>Roentgen irradiation</td>
<td>Not stated</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Koerner 1927</td>
<td>F75</td>
<td>Bloody discharge for a year. A dark red, polypoid, solid tumor found on the floor of urethral orifice</td>
<td>Local excision and roentgen treatment</td>
<td>Local recurrence seven months after operation</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Rosenthal 1935</td>
<td>F75</td>
<td>Foul &quot;vaginal&quot; bleeding for six weeks. A small, purple-black, friable, pedunculated, cauliflower growth at the urethral orifice</td>
<td>Excision of tumor with electrical cauterity</td>
<td>11 months follow-up; patient living</td>
<td></td>
</tr>
</tbody>
</table>

found close to the external orifice (Table I: Cases 1, 4, 5, 7, 8, 9), although in 2 instances it was more proximally situated (Cases 2, 3).

The tumor may be either flat or pedunculated. If it is pedunculated and situated near the urethral orifice, it usually protrudes and an origin from the glans penis may be suggested in the male. Not infrequently the lesion has the characteristics of a chancre (Case 1 and the author's case). The margin is slightly rolled and well circumscribed; the surface moist and granular; and the consistency indurated and almost cartilaginous. The lesion so closely resembled a primary syphilitic sore in one instance (Case 1) that antiluetic treatment was given for a period of six months. The only distinguishing feature is perhaps the color. Melanoma is characteristically bluish-black or purplish, while a chancre is usually dusky red. A careful history and examination should prove of aid in distinguishing the two conditions.

To differentiate melanoma from epithelioma of the penis, which is so often met with in China, a pathological examination of the tumor tissue is indicated. Histologically the melanoma is composed of compact masses of irregular polygonal or large spindle cells, with clumps of brown pigmented granules in the crevices of the tissue as well as in the tumor cells (Figs. 3 and 4).

When the tumor is more proximally situated, especially if a urethral dis-
charge is present, the condition may be mistaken for a periurethral abscess or urethral stricture of gonorrheal origin. Endoscopy should be performed in order to determine the nature of the lesion.

When a metastatic lesion, regional or distant, is present, a positive diagnosis may be made by excising and examining one of the lymph nodes.

**Treatment:** As soon as the correct diagnosis has been made, amputation of the penis should be done. Only in those cases in which the growth is very limited in extent and the tumor is promptly excised with a wide margin of normal tissue is recurrence delayed or possibly prevented altogether. Otherwise, the tumor promptly reappears and the prognosis is of the worst.

The results with roentgen irradiation alone have been uniformly bad. It seems likely that the best results can be achieved by a combination of wide excision with adequate irradiation.

Cystostomy or urethrostomy may be performed as a palliative measure when the condition is advanced and efforts to save the patient’s life must be abandoned.

**Summary**

1. Melanoma of the urethra is a rare form of malignancy. The recorded cases are summarized in tabular form.

2. Obstruction to the urinary stream is the main clinical feature. Being common to many other conditions of the urethra, this symptom is not pathognomonic. The color of the lesion and biopsy are reliable means of differentiation.

3. A report is made of a case of melanoma close to the urethral orifice, treated by partial amputation of the penis and postoperative irradiation of the regional lymph nodes. The patient is living and well two years after operation.

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**References**