Evidence of acute urinary retention in women in 3 case series

<table>
<thead>
<tr>
<th>Cause</th>
<th>Klarskov (N=18)</th>
<th>Preminger (N=27)</th>
<th>Doran (N=103)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>4 (22)</td>
<td>4 (15)</td>
<td></td>
</tr>
<tr>
<td>Neurological</td>
<td>8 (30)</td>
<td>7 (7)</td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>3 (11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detrusor failure without</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other abnormality</td>
<td>9 (50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychogenic</td>
<td>8 (30)</td>
<td>3 (3)</td>
<td></td>
</tr>
<tr>
<td>Postoperative</td>
<td>4 (15)</td>
<td>25 (24)</td>
<td></td>
</tr>
<tr>
<td>Gynecological</td>
<td>3 (17)</td>
<td>17 (17)</td>
<td></td>
</tr>
<tr>
<td>Urinary obstruction</td>
<td>2 (11)</td>
<td>7 (7)</td>
<td></td>
</tr>
<tr>
<td>Urinary Inflammation</td>
<td></td>
<td>7 (7)</td>
<td></td>
</tr>
<tr>
<td>Urinary iatrogenic</td>
<td>1 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postpartum</td>
<td>33 (32)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rectal</td>
<td>3 (3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Values are n (%).

small case series that do not state inclusion criteria or describe a standard diagnostic evaluation. The results from 3 case series studies are included in the **TABLE**.

A prospective analysis of a consecutive series of 18 women (median age 68 years) treated for AUR in 6 hospitals in Copenheagen was published in 1987. Underactive detrusor function without other organic abnormality was found in half the patients. Three patients had underactive detrusor function and obstruction (cystocele in 2 and urethral stricture in 1). Obstruction (urethral calculus, total uterine prolapse) with normal detrusor function was found in 2 patients.

In a study of 27 consecutive cases of AUR in girls and women in North Carolina and Virginia published in 1983, all patients had a complete history, physical exam, volume of catheterized urine at initial presentation, urinalysis, urine culture, excretory urography, cystometrography and, in some cases, cystoscopy. The age range of patients was 14 to 82 years.

A retrospective then prospective survey of 103 women with AUR in the Bristol Clinical Area of the United Kingdom was reported in 1976. Patients were included if the retention was painful and acute in onset, and if less than 1 L of urine was obtained on catheterization. The most common causes were postpartum and postoperative. The remaining women were admitted to the hospital and had diagnoses grouped as gynecological, urological, neurological, psychiatric, and rectal. The gynecological causes were most often fibroids and retroverted uterus. The urological causes included patients with inflammation, and bladder neck and urethral obstruction.

Teresa Quinn, MD
Donald Pine, MD
Diane Madlon-Kay, MD, MS
U of Minnesota
Minneapolis, MN

Can metformin be safely used in elderly patients?

**Evidence-Based Answer**
Yes. There does not appear to be an increased risk of lactic acidosis in elderly patients with diabetes taking metformin when doses are adjusted for creatinine clearance (SOR: C, disease-oriented outcomes).

A 2011 subgroup analysis of a larger retrospective cohort study reported outcomes in 180 diabetic Japanese adults older than age 65 (average age 70) who were treated with metformin for glucose control. The patients received metformin 250, 500, or 750 mg daily depending on creatinine clearance, although the exact creatinine cutoff levels were not described. Outcomes measured were HbA1c and lactic acid levels.

There was no difference between the reduction of HbA1c from baseline between the elderly and nonelderly groups (data presented graphically). For the 34 patients aged >75 years, HbA1c decreased from 7.9% to 7.2% after 12 months of metformin use (P<.001). There were no cases of lactic acidosis during the study period.

A 1990 prospective cohort study enrolled 24 patients between 70 and 80 years of age to see if metformin was efficacious and safe in elderly patients with diabetes. Prior to participating, some patients were on metformin alone (n=2), metformin combined with another hyperglycemic drug (sulfonylurea; n=15), a sulfonylurea alone (n=3), insulin alone (n=1), or controlled with diet only (n=1). The investigators had the patients take metformin alone when possible.
(sulfonylureas were discontinued in 9 cases). The metformin dose used was either 850 or 1,700 mg daily, depending on creatinine clearance (30–60 mL/min or >60 mL/min, respectively).

No significant changes in glycemic control from baseline were found at 1 and 2 months of the therapy (HbA1c 10.5% vs 9.7% at 2 months). Lactic acid levels were unchanged in the higher dose group from baseline to 1 month to 2 months (1.7 to 1.7 to 1.5 mmol/L) and decreased in the lower dose group (2.2 to 1.6 to 1.2 mmol/L; \( P < .05 \)).

A 2010 cross-sectional study enrolled 66 patients with diabetes who were older than 80 years (range 80–90 years of age, mean 83.6 years) receiving metformin at 3 different doses (1,000, 1001–2,000, or >2,000 mg daily). A group of 79 younger patients (range 37–79 years of age, mean 59.9 years) was enrolled as a control group. There was no significant difference in lactate levels between the elderly and control groups (13.2 and 13.5 mg/dL, respectively) and no cases of lactic acidosis were identified. The older group did receive lower doses of metformin and had lower estimated creatinine clearances than the younger group.

Bichlien T. Do, MD
Kate Rowland, MD, MS
The University of Chicago (NorthShore)
Chicago, IL


**Should you biopsy pigmented lesions on the palms or soles?**

**Evidence-Based Answer**

Pigmented lesions of the palms and soles are common in some ethnic groups. Biopsy should be considered if the lesion is 9 mm or more in diameter (SOR: B, Japanese cohort studies).

A retrospective observational study was conducted to evaluate the prevalence and dermatoscopic characteristics of plantar melanocytic nevi and the relationship between acral nevi and acral lentiginous melanoma on the soles of Japanese patients. A total of 1,697 patients were included in the control group. The melanoma group consisted of 104 patients with malignant melanoma of various types on the soles of the feet. Photographs and dermatoscopic images of the nevi on the soles and toes were obtained and independently examined by 2 dermatologists.

Compared with the control group, the melanoma group did not have a significant difference in the prevalence of benign melanocytic nevi (13% vs 10%; \( P > .05 \)) or the mean size (4.8 vs 3.8 mm; \( P > .05 \)) of melanocytic nevi on the soles of the feet.

An observational study was conducted to determine the number, size, and distribution of acquired melanocytic nevi in a Japanese population and to evaluate the relationship between number of acquired nevi and development of acral or nonacral malignant melanoma. Eighty-two patients with malignant melanoma were compared with 600 patients with cutaneous disorders other than malignant melanoma or melanocytic nevus as the control group. Experienced dermatologists counted the number of acquired melanocytic nevi 2 mm or larger in diameter on the whole body except the scalp and genital areas. For statistical analyses, the subjects were divided into 5 age categories (0–19, 20–39, 40–59, 60–79, and >80 years old).

Significantly more acquired nevi were found on the whole body in patients with nonacral melanoma compared with the control group in the 40–59 and 60–79 age groups, but no significant difference was noted in the number among individuals who had acquired nevi on soles, palms, and nail apparatus between acral melanoma group and the control group in the 40–59 and 60–79 age groups.

In a retrospective observational study, clinical and histopathologic features of 144 pigmented lesions excised from the soles of Japanese patients were investigated, to propose clinical guidelines for early detection of plantar malignant melanoma. Ages, clinical diagnosis, maximum diameter, and color photographs of the lesions of the patients were reviewed.

Of the 144 pigmented lesions excised from plantar surface of 137 Japanese subjects, 140 were melanocytic nevi. All acquired melanocytic nevi and dysplastic nevi were <9 mm in diameter. In contrast, all lesions of plantar malignant melanomas were \( \geq 9 \) mm in diameter. Mean maximum diameter of plantar malignant melanomas was significantly larger than that of acquired melanocytic plantar nevi including dysplastic nevi (32 vs 4 mm; \( P < .001 \)).