Diabetic foot osteitis: more than double trouble
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Introduction

- Bone infection in the diabetic foot is a complication of a preexisting infected foot wound.
- It can be suspected in two conditions: no healing despite appropriate care and off-leading or palpated bone.
- We aimed to present clinical, microbiological, radiological, and therapeutic particularities of diabetic foot osteitis.

Methods

- Nineteen cases were treated in the Infectious Diseases department in Sfax (Tunisia) from 2015 to 2019

Results

- Mean age: 58±12 years
- 13 males (68.4%) and 6 females (31.6%)
- Type of diabetes:
  - Type 1: 7 patients (36.8%)
  - Type 2: 12 patients (63.2%)
- Degenerative complications:
  - Diabetic neuropathy: 63.20%
  - Diabetic arteriopathy: 36.80%
  - Nephropathy: 31.60%
  - Retinopathy: 5.30%
- Repetitive foot microtrauma: Seven patients (35%)

The most common lesions of diabetic foot:

<table>
<thead>
<tr>
<th>Lesions of diabetic foot</th>
<th>Cases(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infected ulcer</td>
<td>10 (52.6%)</td>
</tr>
<tr>
<td>Abscess</td>
<td>7 (36.8%)</td>
</tr>
<tr>
<td>Skin necrosis</td>
<td>6 (31.5%)</td>
</tr>
</tbody>
</table>

A microbiological sample: 84.2% of cases
- Superficial sample (52.6%)
- Fine-needle aspiration (42%)
- Bone biopsy (5.2%)

The germs:

- Staphylococcus aureus: 15.7%
- Streptococcus spp: 21%
- Pseudomonas aeruginosa: 21%

The classic radiography:
- Bone demineralization (31.5%)
- Bone destruction (21%)

CT scan: 7 patients
- Periosteal reaction (42.8%)
- Abscess (42.8%)

Treatment
- Imipenem (42%) was the most used antibiotic.
- The mean duration of antibiotic therapy: 68.8±57 days.
- Amputation: 31.6% of cases.

A favorable outcome was noted in 31.6% of cases.
- Seven patients (36.8%) had chronic osteitis.

Conclusion

- Neuropathic ulceration and altered immune function place the diabetic patient at increased risk of polymicrobial skin infection and osteitis.
- A good balance of diabetes is essential to reduce the loss of the limb.