AN ATTEMPT SHOULD BE MADE TO CONSERVE THE LIMB IN ALL BAD DIABETIC FOOT PATIENTS HAVING KETOSIS & SEPTICEMIA.

KEYWORDS: prevalence, foetomateral outcome

Dr Sachin S Jain
(MS General Surgeon)

Dr Sanjay Agrawal
(MD Medicine and Diabetologist)

Dr Arif Kaderi
(MS General Surgeon)

Dr Abhang Satshil C.
(Second year Surgery Resident)

Dr Sanam S Somani
(First Year Surgery Resident)

INTRODUCTION

Diabetes is a global disease with rural & urban population involved almost equally. Now-a-days incidence of diabetes has dramatically risen in rural population due to change in food habits & sedentary lifestyle. Diabetic patients require continue treatment in the form of antidiabetic tablets & insulin. Diabetes is a systemic disease involving eyes, blood vessels, kidneys. In rural population we do see above systems affected because of diabetes but the commonest problem is diabetic foot infections due to poor hygiene & illiteracy.

Diabetic foot patients many times have abscesses, non-healing ulcer, dry/wet gangrene of toes & maggots. These patients often require surgeries in the form of I & D, debridements, fasciotomies, amputation of gangrenous toes & removal of maggots. In extreme cases patients are having very bad neglected diabetic foot having gross cellulitis, dry & wet gangrene of skin/toes & pictures of necrotising fasciitis, compartment syndrome. These patients are usually in bad ketoacidosis & septicemia requires immediate admission, vigorous medical/surgical management & many times land up with amputations as life saving measures. After AK & BK amputations with modern prosthesis, patients can have near normal life. But after amputation psychosocial impact is very much high, which affect quality of life.

Here in this series we have studied 10 bad diabetic foots having gross cellulitis, dry/wet gangrene of skin/toes and compartment syndrome and gross septicemia and ketoacidosis. We have given trial of limb conserving surgeries to save the foot. In 80% of our patients we could save symes & BK amputations.

Case Selections

All the patients were from Dhule & Jalgaon districts 60Kms from Dhule city. Patients age groups was from 50 to 70 yrs male as well as female. Patients were selected-

1) Almost all patients were in septicemia, ketoacidosis & grossly uncontrolled DM.
2) All patients were from ASA grade I to III
3) 2 patients had mild jaundice may be due to septicemia
4) 4 patients renal parameters were affected because of septicemia.

All the patients were counselled before hand that limb conserving surgery is just an attempt if procedure fails we might have to take patient for amputation. Importance of admission, diet control, anti-diabetic treatment, daily serial debridements & dressing explained to relatives.
Preoperative investigations profile of 10 patients as follows-

<table>
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<tr>
<th>Sr.no</th>
<th>Hb count</th>
<th>WBC count</th>
<th>Sugar F</th>
<th>S. creat</th>
<th>S. Bilirubin</th>
<th>Urine ketones</th>
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<td>236/360</td>
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<td>27000/80</td>
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<td>26000/82</td>
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<td>6</td>
<td>10.3</td>
<td>30000/80</td>
<td>280/420</td>
<td>1.6</td>
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<td>260/388</td>
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Preoperative preparation:

1) Patients admitted with physician/diabetologist for medical management.
2) All patients were put on Insulin pump immediately with every 2 hry sugar monitoring along with urinary ketones.
3) All patients kept nil by mouth.
4) Four patients were in bad septicemia with renal involvement, so were given nasal O2 4litre/min.
5) Immediate doses of antibiotics according to renal/hepatic safety given in appropriate doses. Antibiotics used were among Amoxclav/Ceftriaxone/Sulbactum/Clindamycin/Amiticin/Metrogyl which were altered after 48hrs due to availability of pus culture/sensitivity reports.
6) IV fluids given for adequate hydration/nutrition/Adequate u/o.
7) All diabetic feet washed with antiseptic soap. Dried & dressing +done with betadine/tinidazole ointment.
8) Strict limb elevation given.
9) Evaluation done by surgeon. 8 patients we could operate immediately but 2 were operated after 24 hrs because of gross ketosis to be settled first.

Anaesthesia:

Evaluation by anaesthetist done simultaneously:

1) Very little dose of preanaesthetic drug given considering ketosis/septicemia.
2) All patients operated under low spinal anaesthesia with O2 supplement given as 3litres/min.
3) Analgesia in the form of either diclofenac or tramadol suppository given according to renal status.

Duration of surgery on an average 40 minutes to 1hr required. Many patients required (7) revision surgery in the form of amputation/skin grafting.

Surgical techniques:

Type of surgery | No. Of patients
--- | ---
I & D/Debridements | 10
Amputation of toes | 7
Symes amputation | 1
BK amputation | 1
Fasciectomy | 10
Maggots removal | 3
Skin grafting | 5
Secondary suturing | 2

Benefits noted:

1) Could save 8 feet from amputations.
2) Low incidence of post op morbidity due to low spinal anaesthesia.
3) Minimal disruption to patients & their family.
4) Early return to work with clutches life.

Conclusion:

An attempt should be made to conserve the limb in bad diabetic foot patients as happened in 10 patients studied in this series as 80% success rate which is considerably high.

Extensive cellulitis with dry & wet gangrene of foot with septice-mia/ketosis can be given fair trial of limb conserving surgery as serial debridements & skin grafting on follow up.

References:

2) Lebrun E, Tomic-Canic M, Kissner RS. The role of surgical debridement in healing of...