

Diabetic Foot: Need for a Multicentre Study

Editor: The article by Ogirima et al¹ on "Diabetic Extremities in Kaduna" presents interesting reading. We have looked at diabetes in Ilorin, in one instance concerning its impact on amputations² and in another, its morbidity and mortality among diabetic foot patients.³ We found a new trend of prevalence of indications for amputations in our environment, with a rising significance for diabetes, certainly higher than the 5.3% amputation rate quoted by Ogirima et al.¹ In that paper,² 38% amputation rate was due to diabetes while 33% was due to trauma in a population of 40 patients, who had lower limb amputation in a 5 year period. However, in 14 patients managed in 5 years period in Ilorin, most had poor clinic attendance and drug compliance and 6 died within weeks of their amputation due to end stage renal disease, septicaemia and ketoacidosis. The risk factors for foot gangrene included age over 50 years, duration of diabetes for more than 8 years, poor finance, poor clinic attendance, and poor blood sugar control among others. Revascularisation and multidisciplinary clinic approach are 2 methods of reducing the prevalence of diabetic foot gangrene and amputation, both of which are not operational in our centre. Some workers⁴ have placed greater emphasis on foot pressures to be responsible for the ulcers and subsequent gangrene. Therefore, proper foot wears and foot hygiene should reduce significantly the incidence of diabetic foot pathology.

Based on these features of diabetic foot in Ilorin, the figures from Kaduna by Ogirima et al is different. They did

not report children as their age range was 30 – 75 years, and mean duration of hospital stay of 43.7 days is shorter than ours. It would seem that there was no correlation between duration of diabetes, diabetic foot, amputation rate and timing till death, in their study. The significance of these when provided would help to complete the picture of diabetes between middle belt and northern parts of Nigeria and should stimulate further research. It would be good to know the thoughts of the authors and other readers on this issue.

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References

1. Ogirima MO, Asuku ME, Ukwenya AY, Udezue NO. Nig J Surg Res 2000; 2: 57 – 61.
2. Solagberu BA, Onawola KO. Lower limb amputations in a West African community-a new trend? Trop Doct (in press).
3. Solagberu BA, Kuranga SA. Morbidity and mortality from diabetic foot. West Afr J Med (in press).
4. Lavery LA, Armstrong DG, Vela SA, Quebedeaux TL, Fleischli JG. Practical criteria for screening patients at high risk for diabetic foot ulceration. Arch Intern Med 1998; 158: 157 – 162.

Reply

Editor: We thank Dr. Solagberu for his comments on our paper titled "Diabetic

Extremities in Kaduna. Our paper presented an interesting trend; the rise in the incidence of diabetes mellitus complicated by sepsis of the hands and feet and ultimately leading to varying degrees of gangrene which hitherto were rare in our environment. This study was carried out in northern part of the country over a 5-year period, though it would be very difficult to correlate it with the Ilorin experience, knowing the different geography and lifestyle in these places. We did not look at diabetes and all their complications and children were not treated for these complications, hence the lack of information on children in our report.

Age above 50 years as rightly observed by you is one risk factor for diabetic gangrene; the observation of this complication in the paediatric age group would need further study to critically eliminate other aetiological factors of gangrene in this age group. The short duration of hospitalisation of 43.7 days was the result of our prompt and aggressive approach to this problem as is practiced elsewhere.^{1,2}

The amputation rate of 5.3% observed with diabetes was an observation in a study by Garba et al.³ Our mortality rate of 14.3% occurred within 2 weeks of admission and were due mostly to overwhelming infection.⁴ The risk factors identified in our patients to developing gangrene were age above 45

years, fasting blood sugar > 10mmol/L at admission, late presentation (duration of disease >10 years), nephropathy and ketoacidosis.

I quite agree with the writer on the need to have a *multicentre* study on this disease to ascertain its true spectrum in the country. It would be interesting to read the writer's papers cited, when they are published.

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References

1. Sadlers LJ. Diabetes mellitus. Prevention of amputation. *J Am Podiatr Med Assoc* 1999; 84: 322 – 328.
2. Bridges RM Jr, Dietch EA. Diabetic foot infection: pathophysiology and treatment. *Surg Clin Nor Am* 1994; 74: 537 – 555.
3. Garba ES, Deshi PJD, Ihejirika KE. The role of traditional bonesetters in limb amputations in Zaria. *Nig J Surg Res* 1999; 1: 21 – 24.
4. Ogirima MO, Asuku ME, Ukwenya AY, Udezue NO. Diabetic extremities in Kaduna. *Nig J Surg Res* 2000; 2: 57 – 61.