

Obesity among diabetic patients

Sir,

We appreciate the article by Dr. Yousef A. Al-Turki about obesity among diabetic patients.¹ The author has found a very high prevalence of obesity in diabetic patients attending a primary healthcare center in Riyadh. The prevalence of Body Mass Index (BMI) > 25kg/m² was 76.5% in females and 61% in males. This has a definite relevance with regards to management of diabetes mellitus in these patients. Obesity is a health problem in the majority of developed countries and is emerging as a serious problem in the developing countries. In a study in our tertiary care center we examined 5083 Kashmiri adults (males and non-pregnant females of > 40 years of age) to determine the prevalence of obesity. Out of 5083 study subjects, 2496 were males and 2587 were females. According to BMI, the overall prevalence of obesity in the study population was 15% (males 7%; females 24% P<0.001). Of 5083 study subjects, 216 (4%) were found to have diabetes mellitus on oral glucose tolerance test by World Health Organization (WHO) criteria.² Of these, 216 diabetic patients, only 24.5% had an ideal BMI of <25kg/m², the prevalence of obesity being 14.5% in males and 32.5% in females. Like Dr. Al-Turki, we also found a higher prevalence of obesity in Kashmiri females than their male counterparts though the overall prevalence of obesity was much less than found in Saudi diabetics. This may be because Saudi diabetics are more sedentary and more affluent. Higher prevalence of obesity in diabetics is well known, 80% to 90% of people diagnosed with Type 2 diabetes are obese.³ Obesity is a major risk factor for the development of Type 2 diabetes; the prevalence of obesity has increased during the last decade.⁴ As the prevalence of obesity increases, the incidence of diabetes can be predicted to rise as well. Medical nutritional therapy has been considered the cornerstone of treatment of obese persons with Type 2 diabetes, with caloric restriction to promote weight reduction as the major focus.³⁻⁵ Weight loss, or a decrease in the severity of obesity, can (1) improve measures of metabolic control, such as blood glucose and glycosylated hemoglobin levels in persons already diagnosed with diabetes and (2) reduce the risk of developing diabetes in certain individuals. Yet few weight loss successes are evident with current strategies. Given the magnitude of the problem of obesity, the extent of its relationship to Type 2 diabetes, and the benefits of weight loss, it is imperative to examine types of medical nutritional therapy and to determine which is most effective. Obesity is a major health problem and a risk factor

for many chronic diseases, in particular, diabetes. Obesity and weight loss are greatly influenced by food intake and dietary habits. Health-care providers must possess a thorough understanding of food consumption and metabolism before they can prescribe the most successful strategy for weight loss. However, many unanswered questions remain related to the most effective dietary approach to prescribe for persons with Type 2 diabetes. An interdisciplinary approach to answering the questions is imperative, and dietitians are key contributors to this endeavor. In addition, the traditional exchange system diet, the diet most frequently prescribed for individuals with Type 2 diabetes, needs to be studied further.

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Reply from the Author

I would like to thank Dr. Shariq R. Masoodi, and Dr. Bashir A. Laway for their views on my article 'Obesity among diabetic patients in a primary health care center'.¹ I am happy that the article has stimulated them. It is known that obesity is a major risk factor for the development of Type 2 diabetes mellitus,⁶ over 75% of the newly diagnosed Type 2 diabetic patients are obese.⁷ High prevalence of obesity among adult diabetic patients in my study should not be generalized for all Saudi diabetics, as my sample size was small (338 adult diabetic patients) and it was carried out in the mini clinic in one primary health care center. I hope that my study will stimulate physicians and researchers for further studies in that field. I agree that health care providers need to participate effectively in prescribing the suitable scientific dietary approach and successful strategies for weight loss for patients with Type 2 diabetes mellitus, with great consideration of the social and cultural aspects of each community.

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Neonatal Septicemia

Sir,

I was very interested and perturbed reading the article by Asindi et al.¹ If I have understood the data correctly then "Routine blood cultures were carried out on all neonates admitted to the unit" and "based on the unit policy all infants received antibiotics on admission after sepsis work up". This seems extra ordinary. This translates into 1033 babies having sepsis work up carried out; and antibiotics given for "5 days or until blood culture was negative" when the actual incidence of sepsis was only 9% in this population. Therefore, 936 babies had a sepsis work up carried out and antibiotics given unnecessarily. This practice seems a considerable waste of resources and without any evidence. The authors must urgently review their policy in the light of their own data and the evidence available in the literature. It is also very worrying that despite the plethora of evidence²⁻⁴ that short courses of antibiotics are as efficacious as long courses the authors have used antibiotics for 2-3 weeks in infection. There is no evidence for this in the literature except in cases of meningitis. I am not surprised that *Klebsiella pneumoniae* is smarter than the clinicians and is producing extended-spectrum of betalactamase. Mortality from neonatal sepsis in this report is unacceptably high. It is a pity that the authors instead of wasting resources on unnecessary

investigations and inappropriate duration of antibiotic therapy have not channelled the same resources towards immuno-modulatory adjuvant therapy⁵⁻⁷ which has been shown to significantly reduce mortality in neonatal sepsis.

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Reply from the Author

I thank Dr. Haque for his comments on our article entitled Neonatal Septicemia. It is unfortunate that in an attempt to be brief, some of our statements might have been misconceived. Definitely, not all the infants who passed through the nursery were investigated for sepsis and received empirical antibiotics. Of the 11,324 live-births in the hospital during the period, 3657 passed through the newborn unit. Of these, 2637 were infants of cesarian section, instrumental deliveries, diabetic mothers, those with mild birth asphyxia and other minor problems who were mainly in for observation. Among these were also infants with major congenital malformations who were urgently transferred to a nearby referral institution with facilities for neonatal surgery. The 1033 who warranted full admission were really high risk cases and were ill in varying degrees and infection was always a great concern hence the management approach that was adopted. The low yield of positive culture (9%) in this infant population has, of course, alerted us to be more discriminatory and selective and we have adopted this policy. We routinely treat our newborn infants with established sepsis for 2 weeks, except when a repeat culture is positive or the clinical response is not satisfactory, then we can treat for a longer period. The issue of a shorter course of antimicrobial raised by Dr. Haque is well taken. Therapy for 7-10 days has been recommended but some bacteria require a longer period of antibiotics.⁸ Regarding immunotherapy, we had applied exchange blood transfusion in the past, and presently, we selectively administer immunoglobulin prophylactically to extremely low birth weight infants and to those with overwhelming sepsis. Generally, we have not been impressed by its efficacy. Some studies have shown a beneficial effect of immunomodulatory adjuvant therapy; some have not, hence this mode of treatment

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in reducing sepsis-related morbidity and mortality remains controversial.^{8,9} Our mortality figure of 44% appears high but it cannot totally be attributed to infection per se since these infants were largely admitted for other conditions which were lethal on their own score and none were subjected to autopsy.

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may help to decrease the plasma calcium level, such as Calcitonin, (Calcimar the available parenteral route) in a dose of 200 MRC units which can be used effectively due to its low toxicity. Its efficacy is also proven in other types of hypercalcemia due to bone involvement, such as parathyroid carcinoma. Also some experiments have shown the advantage of taking testosterone,⁴ estrogens, saline, furosemide or phosphate in IV/oral route for decreasing the serum calcium level.⁵ The combination of calcitonin & prednisone and also WE-2721 for treatment of hypercalcemia have been confirmed in some patients with parathyroid carcinoma and may be effective in Paget's disease of bone.^{4,6}

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Paget's disease of the bone

Sir,

With regard to the important and interesting article that Dr. Zargar et al reported about Paget's disease of the bone.¹ In the section on controlling hypercalcemia, there are other useful drugs which

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Reply from the Author

We appreciate the interest shown by Dr. Pahlavan in our article. Paget's disease is a progressive disease of bone and the therapeutic decision is a function of the age of the patient and the severity/activity of the disease. The optimal treatment regimen should obtain normalization or quasi-normalization of markers of bone remodeling. Bisphosphonates are first-line therapy for Paget's disease, and the advent of the new bisphosphonates permit a dramatic improvement in the treatment. Bisphosphonates are characterized by a strong anti-osteoclastic activity and for this pharmacological property they are now considered the treatment of choice for Paget's disease of bone, malignant hypercalcemia and bone metastasis. Etidronate, clodronate and pamidronate have been registered in several countries for this indication.⁷ Tiludronate, alendronate and resedronate have been recently introduced for the treatment of Paget's disease of bone. The intravenous administration of ibandronate, zoledronate and alendronate (40 mg, 10 mg and 5 mg) has achieved the normalization of serum alkaline phosphatase in more than 70% of the patients.⁸ Remarkable improvement has been achieved in juvenile Paget's disease by using synthetic human calcitonin.⁹ The uncommon possibility of secondary resistance to a

given agent after more than one treatment course should be considered in all patients. However, patients showing acquired partial resistance to one aminobisphosphonate (usually after 2 or more previous courses) are still capable of remission after exposure to another compound of the same class.¹⁰

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