

### OUR GUEST EDITOR



*Dr Richa Dewan*

Dr. Richa Dewan, joined Maulana Azad Medical College as Assistant Professor of Medicine in 1984, after a brilliant under graduate and post graduate career at the same institute. She was appointed professor in 1992 and became Head of the Department in 2005. She got promoted to the rank of Director Professor in 2007. During all these year she has established herself as an excellent undergraduate and postgraduate teacher and a research worker.

Her main area of interest has been 'Gastroenterology' she gained expertise in endoscopic procedures. The other important field in which Dr. Dewan got interested has been HIV Management: she has developed a '*National Centre of Excellence for HIV Management*' and for the training of health professionals.

During the last 2 decades of her clinical practice, she has actively participated in the academic programmes organized by API, Indian Society of Gastroenterology, Indian Medical Association and several others. Besides being an astute clinician and an eminent internist, she is an excellent orator. During her short tenure as Head of the Department she has promoted the growth of various specialties and has encouraged her colleagues to achieve excellence in their respective specialities. She has published over 100 papers in the National and International Journals. She has also initiated several public awareness programmes with the help of her departmental colleagues.

### EDITORIAL

This special issue on **Obesity: New Challenges** has been brought out to highlight the increasing problem of obesity and related morbidity afflicting people of all age groups in India and southeast Asia region. 21<sup>st</sup> century has seen India in the middle of epidemic of obesity among young and adolescents. Indians are genetically susceptible to weight accumulation especially around the waist. Studies on 22 different SNPs (single nucleotide polymorphism) near to MC4R gene, have identified a SNP named rs12970134 to be mostly associated with waist circumference. Of all the states in India Punjab has the highest prevalence of obesity among men and women (30 and 37%). Urbanization has been recognized as its strongest risk factor, prevalence being three times commoner in urban areas. In clinical practice, obesity is commonly measured by body mass index (measures generalized obesity) and waist hip ratio (measures central obesity). Other methods are primarily research tools. Excessive fat accumulation in body is primarily due to imbalance between energy intake and expenditure. Multiple environmental and genetic factors are responsible for obesity. Origin of obesity may begin in utero when the fetus is exposed to over nutrition (diabetic mother) or during childhood when the adipocytes are still proliferating. Only two percent are attributed to pathological causes mainly endocrine. Adipose tissue plays an important role in body metabolism, energy reservoir and as an endocrine organ. Molecules produced by adipocytes like leptins, adiponectin, adipocins etc play a major role in body's energy management. Leptin is an important protein hormone, which helps to regulate body weight, metabolism and reproduction. Adiponectin acts as anti-inflammatory and antiatherogenic by preventing insulin resistance. Abdominal obesity, more prevalent among Indians, is a risk factor for premature coronary artery disease, dyslipidemia, hypertension, stroke and diabetes. Recent studies have shown obesity to be an independent risk factor for chronic kidney disease and renal malignancy. The respiratory complications of hypoventilation due to obesity have been recognized for a long time. Charles Dickens in his first novel nearly two centuries ago described the character Mr. Samuel Pickwick so precisely that it gave rise to the term "Pickwickian Syndrome", for extreme obesity associated hypoventilation. Obstructive sleep apnea is 30 times more common in morbidly obese and a 12-fold reduction in overall life expectancy. Children may suffer emotional and physical setback. Obese women are more prone to polycystic ovarian syndrome; pregnancy and fertility related complications stress incontinence, cholecystitis and malignancy of endometrium and breast. The management of obesity has been a major challenge faced by clinicians and researchers in last few decades. Most treatment options use a combination of dietary plus life style modifications and drugs. Objectives of weight loss have to be well defined with realistic goals and should not compromise patients' physical and emotional health. 10 % weight reduction in first six months followed by maintenance of that weight is recommended. Before starting the therapy every patient must undergo a thorough clinical examination and baseline laboratory tests. While on treatment a very close supervision by a health professional is necessary as patient may require dose adjustment of any drugs for associated co morbidities. The treating physician must also address the emotional health of the patient in order to have better treatment outcomes. A number of drugs have evolved so far but none is free of side effects, thereby limiting their use. Currently three drugs are being used in the management of obesity, Sibutramine, Orlistat and Rimonabant. Intake of cannabis has been seen to be associated with an increase in appetite. Rimonabant is the first of the new class of agents that act by selectively blocking cannabinoid -1 receptors with resultant central and peripheral metabolic effects. It has a higher affinity for central receptors as compared to peripheral receptors. The drug has a long duration of action and good oral bioavailability. It reduces food intake and increases energy expenditure. Bariatric surgery has a definite place in the treatment of morbid obese not overlooking the risks and complications. A multidisciplinary approach is recommended for managing obesity.

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