

recurrence. For idiopathic calcium stones, recurrence rate is 40-50% at 5 years and 50-60% by 10 years³¹. The recurrence rates for those with underlying metabolic abnormality are probably higher. Significant efforts have been focused over predicting the risk of recurrence in renal lithiasis patients. Though several risk indices have been devised in past none provides a reliable estimate of recurrence. Crystalluria appear to be a promising indicator of stone disease but its use is limited by practical difficulties³⁴. Mortality from renal stones is rare but some forms of renal lithiasis associated with systemic disorders can cause renal insufficiency³⁵.

ECONOMIC BURDEN OF KIDNEY STONES

The annual health care budget of India is about 4% of its GDP. Within this amount all activities related to health sector need to be sustained. This warrants a cost effectiveness analysis of kidney stone management. Unfortunately such an assessment is lacking in Indian scenario. It will however be useful to gather some primers from similar analysis done in other countries. In United States, a person with nephrolithiasis claimed \$3,500 more in medical expenses than his/her normal counterpart. There was a mean loss of 19 work hours per year due to renal lithiasis. A cost effectiveness study of medical management strategies for nephrolithiasis showed that dietary modification alone was the most cost effective approach, followed by empiric therapy. Comprehensive evaluation and targeted medical therapy were the least cost effective ways of management³⁶. Though direct extrapolation to Indian scenario from these studies will be inaccurate but it should serve the purpose of enabling physicians to let the patients make an informed decision.

CONCLUSIONS

Though limited data is available on epidemiological aspects of nephrolithiasis in India, it is clear that it is a significant cause of morbidity. Its likely that prevalence of renal lithiasis is lower in India than many other Western nations, but it is difficult to say it with certainty in view of lack of studies. The studies assessing composition of renal stones suggest that renal stone disease in India is probably different from other nations. Whether this is related to our environmental and/or genetic factors will be interesting to see. Finally, cost effectiveness of conservative measures deserves a thorough assessment in the Indian scenario where significant portion of population cannot afford medical management. Finally, evidence from across the globe can enable Indian physicians to more effectively practise evidence based management of renal lithiasis.

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ETHICAL GUIDELINES FOR BIOMEDICAL RESEARCH

The need for uniform ethical guidelines for research on human subjects is universally recognised. It has acquired a new sense of urgency as the critical issues in the area of biogenetic research involving human subjects have become acute. Apart from the mandatory clinical trials on new drugs, a number of diagnostic procedures, therapeutic interventions and prevention measures including the use of vaccines, are being introduced which involve human subjects. Further the advent of new medical devices and radio-active materials and therapeutic benefits of recombinant DNA products have added a new dimension to the ethical issues that need to be considered before evaluating these for their efficacy, utility and safety.

Any research using the human beings as subjects shall bear in

mind the following principles of : (i) essentiality, (ii) voluntariness, informed consent, (iii) non exploitation, (iv) privacy and confidentiality, (v) precaution and risk minimisation, (vi) professional competence, (vii) accountability & transparency, (viii) maximisation of public interest and distributive justice (ix) institutional arrangements (x) public domain (xi) totality of responsibility and (xii) compliance.

Recent advances in the field of Assisted Reproductive technologies, organ transplantation, Human genome analysis and gene therapy promise unquestionable benefits to mankind. At the same time, they raise many questions of law and ethics, stimulating public interest and concern.

(Source : ICMRT Publication 2000)