

urologic procedures and is furthering the applicability of this exciting technology. Hemal and colleagues recently reported the feasibility of robotic intracorporeal or extracorporeal ureteric tapering with ureteroneocystostomy for primary symptomatic obstructive megoureter, ureteroureterostomy for retrocaval ureter, ureteral stump excision and ureterosciatic hernia repair^{39,40}.

CONCLUSION

Robotic surgery is a significant advance in the realm of urologic surgery esp. for urogenital cancers and for reconstructive procedures. It is associated with ease in dissection, incision and suturing with less steep learning curve in comparison to laparoscopy. It provides all benefits of minimally invasive surgery.

The development of Robotic surgery is slower in Asian countries due to high cost of the robotic system and instruments. Robotic surgery is practiced in few hospitals in Asia. The overall cost of robotic surgery is less in Asian countries in comparison to USA and Europe with similar outcomes. For widespread use of robotic surgery, cost of the robotic system and instruments has to come down to make it affordable for a large Asian population. We hope the cost of the robotics and their instruments will come down to make it affordable for a large population.

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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 : ICMR Publication 2000)