4. H.D.R. Surface Mould Therapy

Surface mould therapy, which is used for the treatment of superficial surface tumour and has the advantage of control over depth of radiation and thereby sparing the tissue beyond certain depth. It did not become very popular at low dose rate because of associated radiation hazard. Introduction of HDR brachytherapy has renewed the interest of radiation oncologist in the application of surface mould therapy. It is delivered in a fractionated manner over a period of time using 5-8 Gys. per fraction for a total of 6-8 treatments given daily and gives excellent control. It is highly useful for treatment of superficial chest wall recurrences in post-mastectomy patients of carcinoma breast[27].

Conclusion

HDR brachytherapy is slowly replacing all forms of low dose rate brachytherapy due to its inherent advantages and will be standard of care for the treatment of various cancers.

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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 trails* 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) **essentiallity**, (ii) **voluntariness, informed consent**, (iii) **non exploitation**, (iv) **privacy** and **confidentially**, (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.

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