

Advanced breast cancer treated with Neutron Therapy - C. Stannard



***Advanced breast cancer, uterine sarcoma,
irresectable neck nodes & maxillary sinus
tumours treated with neutron therapy***

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Abstract:

Patients with locally advanced breast cancer were treated in a prospective randomised dose-seeking study in the early '90's comparing 17Gy neutrons with 19Gy, both in 12 fractions in 4 weeks. Local control rate, CR+PR, for the 74 patients was 68% for 17Gy and 83% for the 19Gy arm. There was no difference in survival or acute toxicity but there were 3 grade 4 toxicities with the higher dose. The shorter course of 4 weeks was well tolerated with apparent improved quality of life.

From 1996-1999 a controlled trial of 18Gy neutron therapy in 4 weeks was compared with a 6 week course of 60Gy

photon therapy. 22 of the 27 patients were evaluable and the local control, CR+PR, was 50% for the neutron arm and 60% for the photon arm. Median survival was 21% for neutrons and 13% for the photon arm. Again the shorter course of 4 weeks for neutron therapy was better tolerated than the photon arm with improved quality of life.

37 patients with uterine sarcoma were treated with neutron therapy, 18-20Gy in 5 weeks. Seven patients with completely resected tumours had an 83% 3 year local control and survival, 14 patients with incompletely resected tumours had a 45% 3 year local control and 33% 3 year survival and of the 15 patients with irresectable tumours there were 2 partial responses and a 19% 2 year survival. Four patients with incompletely resected tumours were locally clear when they died of metastases at 7-37 months.

There were 91 patients with maxillary antral tumours treated with neutron therapy, median dose of 20Gy in 12/15 fractions in 4/5 weeks. 80 had T4 tumours and 11 were T3. Fifty were squamous carcinomas and the remainder were salivary gland malignancies. The local control rate at 2 years was 60% for salivary gland tumours, 30% for squamous carcinomas and 45% overall. Survival at 2 years was 80% for salivary gland tumours, 35% for squamous carcinomas and 57% overall. These results compare favourably with other neutron therapy series but chemoRT is showing promising results. Several trials of neutron therapy for squamous carcinoma of the head and neck showed varying results but one showed improved local control for neck nodes. We treated 20 patients with irresectable neck nodes, from an unknown or small primary, with neutron therapy, 20Gy in 12/15 fractions in 4/5 weeks. The median diameter was 8.5cm.

There were 8 complete responses and 6 partial responses. The median survival was 25 months, range 3-91 months, in the 8 patients achieving a complete response and 5.5 months, 3-16 months in the other 12 patients.

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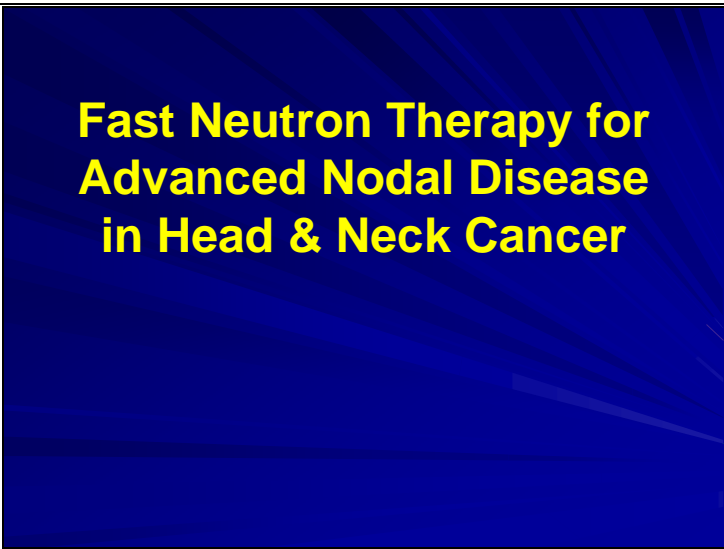
Uterine sarcoma


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Malignant Melanoma

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Locally Advanced Maxillary Antral Tumours Treated with Fast Neutron Therapy

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 <p>Fast Neutron Therapy for Advanced Nodal Disease in Head & Neck Cancer</p>	NO COPYRIGHT PERMISSION
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