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CARDIAC SCHWANOMA: A CASE REPORT

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Soft tissues sarcomas are rare, and cardiac localization uncommon. We report here a case of invasive primary tumor of the heart, incompletely surgically resected and treated by postoperative radiation therapy.

In January 1989, a 67 year old woman undergoes a right costal traumatism. In April 1989, a systematic chest X-ray is performed showing in the right side a diaphragmatic hernia and in the left cardiac side an opacity with an increase of the cardiac size. Clinical examination is negative. Echocardiography shows a pericardial effusion and an heterogenous mass near left ventricular cavity. Electrocardiogram is normal. The patient is operated on. A large infiltrating tumor arising from the left ventricular wall is incompletely removed. The anatomopathological examination is in favour of low grade schwanoma with infiltration of the adjacent myocardium. Metastatic check-up shows no evidence of dissemination. Radiation therapy is administered to tumor bed: 45 Gy in 25 fractions, and 5 weeks using 25 MV photons.

More than five years later, the patient is alive without evidence of recurrent disease or complication.

Post-operative moderate doses of irradiation seem to be effective in the treatment of incompletely resected low grade cardiac schwanoma.

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VARIATIONS OF TOTAL DOSE TO TUMORAL BED IN BREAST IRRADIATION

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Purpose To evaluate the variations of the total dose given to tumoral areas in breast irradiation. *Materials and Methods* 50 patients consecutively submitted to CT for treatment planning were admitted in this study. The planes were elaborated on Varian Cadplan 2.61 both for whole breast irradiation (2 or 3 tangential fields of a cobalt unit, with compensator wedges, 2 Gy per fraction to 50 Gy) and for boost (fixed electrons field of adequate energy, 2 Gy per fraction to 10 Gy) according to ICRU 50 report. The doses were calculated localizing the tumoral areas with presurgical mammography or breast echography, description of the operation, possible presence of clips, and treatment planning CT. *Results* The dose on tumoral areas varies from a minimum of 46.55 Gy to a maximum of 53.45 (average 50.75, range 6.9 = 13%) with the tangential fields. The RBE varies from 55.25 to 64.9 Gy (average 61.05, range 9.65 = 16%). The total dose to tumoral beds varies from 57.8 to 63.5 Gy and the correspondent RBE from 69.1 to 76.9. *Conclusions* The evaluation of the radiotherapy efficacy in breast irradiation must be also related to the dose to tumoral bed and not only to the prescribed dose. In facts, its high variations (and, consequently, its remarkable differences in RBE) might falsify the data interpretation, especially when the relationship between local relapse and boost usefulness is considered.

Melanoma/sarcoma

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VISUALIZATION OF SOFT TISSUE SARCOMAS (STS) AND MELANOMA AND QUANTITATION OF THE PROTEIN SYNTHESIS RATE WITH L-1-[C-11]-TYROSINE POSITRON EMISSION TOMOGRAPHY (PET)

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Introduction Malignant tumor cells have an increased proliferation rate and increased demand for amino acids. This physiochemical phenomenon can be visualized by PET. The potential of L-1-[C-11]tyrosine (TYR) to visualize STS or melanoma and quantify the protein synthesis rate (PSR) was investigated.

Methods 12 patients (pts) with a tumor were studied, mean age 50 (range 24–74) yrs received 296 ± 92 MBq TYR IV. All pts were studied in a dynamic mode, images were corrected for attenuation with a transmission scan. Arterial blood samples were taken for measurement of the tyrosine input function, and the assessment of tyrosine metabolites ([C-11]CO_2, [C-11]) proteins. Region of interest was placed over the tumor and PSR of the tumor was calculated with the use of computer analysis (Patlak). Histology was obtained after PET.

Results All malignant and benign lesions were correctly identified with TYR-PET. The malignant lesions depicted as a hot spot, the benign lesions as a cold spot. The mean PSR's (nmol/ml/min) and Tumor-to-Muscle ratio (TM ratio) are statistically significant between malignant and benign lesions ($P = 0.03$).

Conclusion TYR is applicable for the visualization of STS and melanoma, PSR may allow future use in the evaluation of chemotherapy or radiotherapy.

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C-MYC ONCOPROTEIN: AN INDEPENDENT PROGNOSTIC MARKER FOR PRIMARY MELANOMA

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Breslow Depth remains the most accurate prognostic marker for primary melanoma though it fails to predict outcome in a significant number of patients. The aim of this study was to establish the prognostic value of c-myc oncoprotein using multivariate analysis.

C-myc oncoprotein was measured in 92 primary melanomas (0.75–2.49 mm) using flow cytometry. Median follow up was 81 months. Oncoprotein was detected in 87 (95%) of rumours Survival curves constructed using the Kaplan-Meier method showed significantly shorter survival in tumours with high c-myc ($P < 0.01$). Multivariate analysis using Cox's proportional hazards model showed c-myc expression to be an independent prognostic marker more powerful in determining outcome than all others, including Breslow depth (Chi squared = 9.68, $P < 0.01$).

The results of this study indicate the powerful prognostic value of c-myc oncoprotein. Further consideration of this oncogene and its manipulation may provide an objective platform for the design of future therapy.

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INTERFERON α 2 A AS AN ADJUVANT THERAPY IN MELANOMA STAGE I: RESULTS OF THE FRENCH MULTICENTER STUDY

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Between 1990 and 1993, 497 patients with resected melanoma stage I Breslow level ⩾ 1.5 mm were included in a randomized trial comparing IFN alpha 2A 3 MU, 3 times a week for 18 months versus no treatment.

Disease-free survival was statistically significantly higher in treated patients ($P = 0.007$) with a benefit of +5%, +14%, and +19% at the end of the first, second and third year, respectively. Overall survival was not significantly different, probably due to the limited number of deaths (follow up too short ?) .17% patients stopped treatment before the 18th month, but no major toxicity was reported.

This is the first study showing that an adjuvant therapy is efficient in melanoma stage I. Whether or not overall survival will be changed is still an open question.