

RADIOLOGICAL LABORATORY

University of California School of Medicine, San Francisco
Department of Radiology

SEMIANNUAL REPORT

for period ending December 31, 1957

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CLINICAL SECTION

Robert S. Stone, M.D., Section Chief

PATIENT TREATMENT - 70-MV X-RAYS

The synchrotron has been in continuous use in the treatment of patients since the last report (UCSF-15). As of December 31, 1957, a total number of 40 patients had been treated during a period of 18 months with this mode of therapy.

During this last 6-month period, we have altered our previous policy of administering a tumor dose of 5250 rads in five weeks to 6000 rads in six weeks when we judge that the patient can tolerate it. Patients with bronchogenic carcinomas, tumors of the oral cavity, and carcinomas of the cervix (stages III, IV) have been treated with such a dose. The observable tissue reactions, such as those of the skin and mucous membranes, in most cases have increased with this increase in dosage. The reaction has been more severe in cases where the overlying skin or mucous membrane has been exposed under bolus than in cases where bolus was not required. Moist desquamation of the skin has been observed in a few patients, but in all cases this has healed without complication one to two weeks after therapy and the re-epithelialized areas have been soft and pliable.

Among our cases of carcinoma of the uterus, we have had the opportunity to treat two cases of advanced carcinoma of the cervix. One of these was a squamous cell carcinoma of the cervix, stage III, with extension bilaterally to the pelvic side walls. The other was a moderately well differentiated squamous cell carcinoma of the cervical stump and vagina with involvement of the rectovaginal septum. The first patient was treated with a dose of 5250 rads to the entire pelvis in five weeks; the second, in accordance with our revised dosage, was treated with a total of 6000 rads in six weeks. Examination of the first patient twelve and one-half months after therapy has revealed a normal cervix with parametria free of induration. Examination of the second patient three and one-half months after therapy has revealed a soft, pliable vaginal vault and a perfectly soft rectovaginal septum. While two cases are insignificant with respect to any statistical meaning, it is, nevertheless, a very gratifying and encouraging result when we consider the extensive disease which these two patients had at the commencement of therapy. Certainly further investigation is justified with more cases of this type to determine if it is possible to achieve worthwhile arrest of growth and control in these advanced tumors of the cervix.

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Table I
 Patients Treated With 70-Mv X-Rays
 June - December, 1957

Anatomical Region	Lesion	No. Treated	Condition on December 31, 1957	
			No. Living	No. Dead
Urinary Bladder	Carcinoma	5	1	4
Lung	Bronchogenic Carcinoma	11	5	6
Head and Neck	Carcinoma	11	7	4
Kidney	Carcinoma	1	0	1
Esophagus	Carcinoma	2	0	2
Orbital Bones	Carcinoma (Skin)	1	1	0
Brain	Menigioma	2	2	0
Uterus				
Cervix	Squamous Cell Carcinoma	3	2	1
Endometrium	Adenocarcinoma	3	3	0
Testis	Seminoma	1	0	1
Total:		40	21	19

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