

Development of a specialized service for patients undergoing C. R.S

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Introduction: The understanding of the multiple factors involved in the physiopathology of radiation exposure injuries is very relevant. Wound closure is cyclical, with exacerbation periods, mostly linked to received doses, and patient's comorbidities: diabetes, smoking, obesity etc., added to ischemia-reperfusion of the dermal vessels and causing even more damage.

Objective: Chronic or non-healing wounds can develop after radiotherapy, interventional procedures and accidental overexposures to ionizing radiation, and are the cause of considerable morbidity and health costs. The objective of this work is to stress the importance of the existence of a specialized sector for the diagnosis and treatment of CRS

Materials and methods: 500 patients with localized radiation injuries were assisted in the frame of an agreement between the Nuclear Regulatory Authority and the Burn Hospital of Buenos Aires since 1997 until now. Patients displaying acute and/or late cutaneous reactions were classified according to the toxicity criteria of the Radiation Therapy Oncology Group (RTOG) and EORTC, grades 0 to 4. All cases were treated with the established protocol: local topic administration of silver sulfadiazine +lidocaine +vitamin A, associated with oral administration of pentoxifylline ,400 mg and oral antioxidants Vitamin E, 400 U.I

Implement a database containing the following information:

Name, surname, medical record number, exposition to radiation, time to the onset of symptoms and first consultation at the Hospital, the report of previous studies and treatments

Monitoring the health status of patients in order to early diagnose the stochastic and deterministic radiation effects and preventing the appearance and progression of local complications.

Patient Follow-up:

I. Inspection of the skin. Photography registry, pre and post treatments.

II. Give the patient alarm patterns in relation to color changes, blistering, itching sensation and / or pain, etc. in the compromised area.

III. Involve patients in their monitoring.

IV. Implement the use of superoxide dismutase local cream as antifibrotic.

V. Advise patient of potential risks from the application of radiation. Cost / benefit.

VI. Let the patient know that if a complication occurs, it can be treated by a team of experts and that there is a protocol for treatment of radiation injuries proved scientifically and internationally approved

Remarks

- **Prognosis is always serious. In those that interrupted prescribed treatment, severe pain and lesions reappeared.**
- **Due to the cyclic evolution and chronification tendency of these lesions, we emphasize the importance of long term follow up, including both clinical and psychological aspects.**
- **Increased vulnerability to trauma of the affected areas was observed.**
- **A radiation origin should be considered in all cutaneous lesions occurring within few weeks/ months of fluoroscopically guided procedures or after radiotherapy, unless a clear alternative diagnosis is established.**