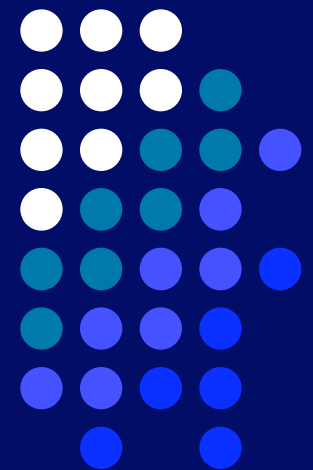


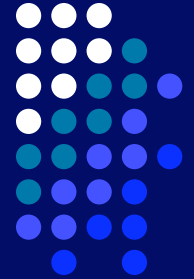
CUTANEOUS T-CELL LYMPHOMA

Debra Gallinger MRT(T)AC
Disease Site Coordinator



Juravinski Cancer Centre
A Cancer Care Ontario regional partner

OVERVIEW



- CTCL Treatment
- History of Radiation use
- Types of treatment
 - Partial skin, Total skin
- What we do at the Juravinkski Cancer Centre in Hamilton



CTCL TREATMENT

Multidisciplinary care is the key!

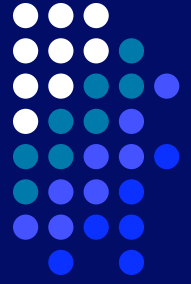


Table 2. Initial treatment options for cutaneous T-cell lymphoma (CTCL) by stage.

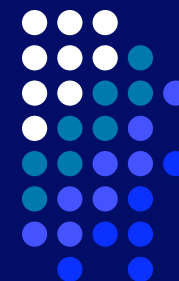
Stage	Clinical Features	Treatment Options
1A	Limited patch, plaque (<10% BSA)	Topical steroids, nitrogen mustard or BCNU, Targretin gel, spot electron beam irradiation
IB-IIA	Extensive patch, plaque (>10% BSA)	Topical nitrogen mustard or BCNU, PUVA, Targretin gel, † total skin electron beam irradiation, methotrexate, IFN, PUVA + IFN, Targretin capsules
IIB	Tumors	Spot electron beam irradiation, PUVA +/- IFN, methotrexate, Targretin capsules, ONTAK
III	Erythroderma without Sézary cells	PUVA, total skin electron beam irradiation, topical nitrogen mustard or BCNU, Targretin capsules, IFN, PUVA + IFN, methotrexate, purine analogs
III	Erythroderma with Sézary cells	Extracorporeal photopheresis, PUVA + IFN, Targretin capsules, methotrexate, purine analogs, ONTAK
IV	Lymph node or visceral involvement	Skin-directed therapies plus Targretin capsules, IFN, ONTAK, purine analogs, cytotoxic chemotherapy

Abbreviations: BSA, body surface area ; BCNU, carmustine; PUVA, phototherapy with ultraviolet A (UVA) with psoralen; IFN, interferon; ONTAK, denileukin difitox.

† Topical Targretin may cause irritation if applied to a large body surface area.



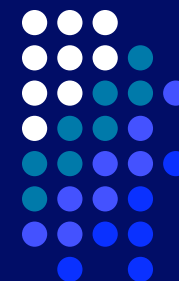
KEY CONCEPTS



- CTCL is sensitive to radiation
- CTCL a long term disease
 - 25 years or more
- Radiation has upfront and long term costs
- Less is More
- Need to balance treatment choice with disease and life factors.
- Decisions may change over time
- Multidisciplinary care is key!



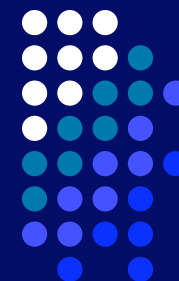
HISTORY OF RADIATION USE



- First type of lymphoma to be treated with radiation in 1902
- First Use of Total Skin Electron Beam Radiation early 1960's Stanford University
- In Hamilton we use a modified Stanford Technique



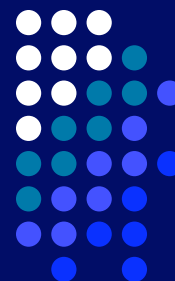
RADIATION AND CTCL



- Radiation= Energy directed at the skin
- Penetrates about 1-1.5 cm (1/2 inch)
 - PUVA is millimetres
- Radiation only present when machine on
- “Likes” flat surfaces, “dislikes” contours and folds
- “spray painting”



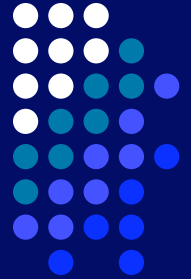
LOCAL RADIATION



- Given over a longer course if only area affected
- Evidence of good effect for early stages with less side effects
 - Wilson, Kachinski and Jones Int J Radiat Oncol Biol Phys. 1998 Jan 1;40(1):109-15
- Short course useful for symptoms
 - Between 1 and 10 sessions
- Can be given in most radiation oncology departments
- Used to patch fold areas to make sure even dose when treating total skin



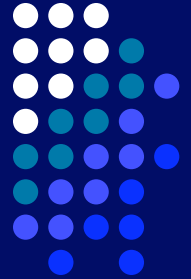
TOTAL SKIN ELECTRON BEAM RADIATION



- Effective in controlling early stages with plaques
- Over 90% “respond”, 75% completely but up to half may recur over time.
- Excellent symptom help in more advanced stages and not effective over the long term as a stand alone treatment



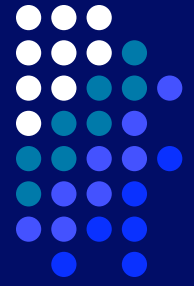
PRACTICAL INFORMATION



- We can generally treat up to 4 at any time
- Only 1 of 2 centres in Canada who give TSEB
- We see about 40-50 cases per year and treat 25-30 with TSEB
- Generally takes 2-4 weeks to get on treatment



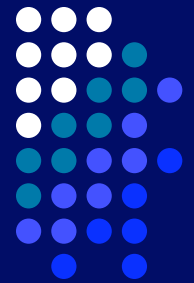
TOTAL SKIN ELECTRON BEAM



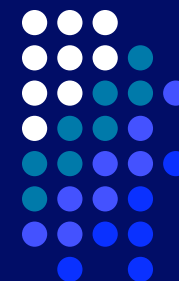
- Need to cover the entire skin surface – patients must be naked for treatment.
- 3 positions front and back designed to expose all skin areas – need to assess skin folds.



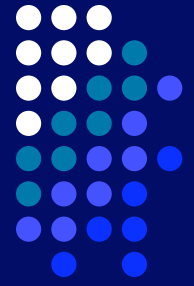
TOTAL SKIN ELECTRON BEAM



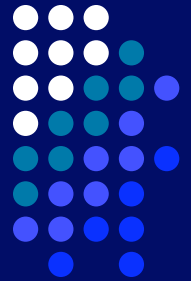
TOTAL SKIN ELECTRON BEAM



TOTAL SKIN ELECTRON BEAM



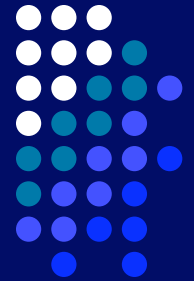
ACUTE SIDE EFFECTS



- Predominately skin – includes both the general skin and the structures of the skin – hair follicles, nails and sweat glands.
- Tend to start during 3/4th week of treatment.
- Skin may become erythematous, scaly/flaky and pruritus may occur. Open areas may occur especially in skin folds, hands and feet – potential for skin infection.
- Hair loss begins in 3rd week. Can loose all or part of body hair. Generally grows back 2 –4 months post treatment. May come back a different colour or texture.
- Fingernails and toenails stop growing because of TSEB. Nail loss is possible. Growth is suspended for 2 – 6 weeks. As new nails grow, old nails become a bit thicker and may feel loose.



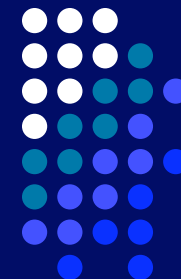
LONG TERM SIDE EFFECTS



- Long term side effects depend on initial condition of skin, total radiation dose and may include:
 - Chronic dry skin
 - Superficial atrophy with wrinkling
 - Uneven pigmentation
 - Skin fragility
 - Permanent hair loss
 - Permanent skin damage



THANK YOU



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