

原文題目(出處)：	Unintended benefits of immunosuppression on autoimmune disease due to chemoradiation therapy for head and neck cancer. Am J Otolaryngol 2008;29:63-5
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報告日期：	2008/9/22

內文：

Abstract:

Immunosuppression by radiation and chemotherapy

→Cause

1. systemic complications
2. Hematologic complications
3. Opportunistic infection
4. Development malignancy

→But also beneficial incidentally

- Case I:
 - tonsil ca. with severe R.A.
 - Treat with chemo-radiation
 - resulted in remission of its R.A.
- Case II:
 - p't with severe atopic eczema on long-term with psoralen and ultraviolet A radiation (PUVA)and azathioprine;
 - developed metastatic carcinoma of the lip
 - treated with surgery and radiation
 - resulted in complete remission of his eczema.

CASE I

1. found enlarge tonsil on left side of neck on routine exam
2. excision biopsy: poorly differentiated SCC
fine needle aspiration cytology(FNAC): metastatic ca.
direct laryngoscopy: normal result
3. 14-year of erosive rheumatoid arthritis
 - affecting his cervical spine, shoulders, wrists, knees, ankles, and distal interphalangeal joints.
 - morning stiffness of 3 to4 hours
 - mobilized with 2 sticks and could barely walk 50 yards.
4. Tx of rheumatoid arthritis
 - gold injections
 - sulfasalzine
 - nonsteroidal anti-inflammatory drugs,
 - long-term **methotrexate** (7.5 mg weekly)
 - folic acid
5. Tx for SCC
 - Radiotherapy(5500 cGy given as 26 fractions)
 - concomitant chemotherapy
 - methotrexate and folic acid were discontinued during chemoradiotherapy
6. result of chemotherapy (carboplatin, 5-fluorouracil[5-FU], and folinic acid) of SCC

- walk 200 yards unaided, without discomfort (50 yard with 2 sticks)
- morning stiffness now only lasted from 30 to 40 minutes (3 to 4 hours)
- reduction of myalgia

7. follow up
 - 3 years
 - no signs of local or regional recurrence
 - rheumatoid arthritis is well controlled

CASE II

1. 45-year-old patient, referred from Dermatology,
 - with a painless, nonhealing ulcerated lesion of the lower lip
2. With severe atopic eczema
 - treat by dermatologist for 6 years
 - involving the face and neck and the upper trunk
3. Tx of atopic eczema
 - psoralen and ultraviolet A radiation (PUVA) (total of 268 cycles varying from 2 to 4 J for the past 2 years)
 - **azathioprine** (100–150 mg, bid) for the past 5 years,
 - result :only a temporary limited response to the treatment
4. On examination, he had a 1 x 0.5 cm ulcerated lesion on his left lower lip (near the vermilion border)
 - full-thickness wedge excision of that lesion
 - Histopathology report: poorly differentiated SCC
 - meta to neck over left neck
5. Tx for meta SCC
 - left radical neck dissection.
 - post-op: radiation (4500 cGy) to the neck and mediastinum.
 - treatment with azathioprine and PUVA was stopped during surgery and radiation
6. result of the radiation tx
 - eczema has been quiescent
 - The eruptions on his face, neck, and chest had dried up
7. follow up
 - by dermatology and otolaryngology for the past 4 years
 - no signs of local or regional recurrence of tumor
 - eczema has remained well controlled on local emollients

Discussion CASE I

1. Disease-modifying antirheumatic drugs
 - methotrexate and azathioprine
2. Bunch et al (2002)
 - p't with metastatic colorectal cancer + rheumatoid arthritis
 - treated with 5-FU and leucovorin
 - improvement in the patients' symptoms of R.A.
3. Jensen and Mejer (2003)
 - 71-year-old patient who had a 12-year history of severe R.A.
 - treated in the past with Salazopyrin and methotrexate for R.A
 - treated with 2 cycles of chemotherapy (carboplatin, 5-FU, and folinic acid) for metastatic colonic cancer
 - resulted in remission of his R.A
 - his arthritis was methotrexate-resistant and **responded to 5-FU**
4. methotrexate
 - inhibit DHFR → interferes with the cell cycle
 - but drug-resistant condition: DHFR increase
 - DHFR convert folate to tetrahydrofolate (essential in purine and thymidine synthesis)
5. 5-Fu inhibits thymidylate synthase and the formation of thymidine
 - when DHFR presence, N5,N10-methylenetetrahydrofolate can be synthesized
 - cause irreversible binding

Discussion CASE II

1. PUVA (Psoralen and ultraviolet A radiation)
 - treat skin disorders(psoriasis and eczema)
 - But increase in the risk of cutaneous SCC in patients treated with PUVA(Both European and US studies have demonstrated)

2. azathioprine
 - treat Atopic eczema widely in UK
 - causing effective immunosuppression by interfering with lymphocyte proliferation
 - by disrupts the synthesis of DNA and RNA
 - associated with the development of SCC

3. Radiation therapy (Grenz rays)
 - Treated benign dermatoses in the past
 - carcinogenic effect of radiation for benign disease
 - but in case II intention was not to treat eczema, however it also resulted in the remission of eczema

題號	題目
1	下列有關放射線對口腔影響的敘述何者為非 (A) 味蕾對放射線並不敏感 (B) 放射線治療可能會造成radiation caries (C) Candidia albicans的感染是放射線治療常見的併發症 (D) 放射線治療可能會造成牙齒發育上的問題
答案 (A)	出處：Oral Radiology - Principles and Interpretation, 5th Edition, 2000 p.32~35
題號	題目
2	下列何種組織對於放射線誘發的癌症(radiation-induced cancer)最為敏感 (A) Lung (B) Liver (C) Skin (D) Salivary glands
答案 (A)	出處：Oral Radiology - Principles and Interpretation, 5th Edition, 2000 p.40