A Pilot Study of the Efficacy and Tolerability of Intralesional Recombinant Human Beta-Interferons in Cervical Intraepithelial Neoplasia

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Abstract
Beta-interferons possess anti-viral, cell proliferation inhibition and immunomodulatory characteristics which may be of use in the treatment of cervical intraepithelial neoplasia (CIN). Intralesional administration may avoid systemic side effects. Twenty-six women with cervical punch biopsy proven CIN I and II were treated by interferon injection into the cervical transformation zone according to three dosage regimens—6 million international units (IU) weekly for six weeks, 9 million IU weekly for six weeks and 12 million IU bi-weekly for three weeks. At the last treatment visit, cervical cytology and biopsy were taken to ensure no disease progression and large loop excision of the transformation zone (LLETZ) was carried out six months after treatment.

Therapy was well-tolerated with 93% of the scheduled 156 treatments given. Side effects which caused cessation of treatment included severe myalgia, headaches and prolonged flu-like symptoms. The 2 patients who failed to attend for LLETZ at six months and another 2 patients who received fewer than five scheduled treatments were excluded from analysis. LLETZ histology was negative in 12 patients (54%), showed inflammatory changes or squamous metaplasia in 4 (18%), was unchanged in 4 patients and had progressed in 2 (10%).

Whilst intralesional beta-interferon clearly has activity in CIN, the response rate is less than that seen for excisional or ablative procedures. Nevertheless, it may have a role in the management of CIN where, for medical reasons of patient preference, there is a desire to avoid surgical therapy.

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