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Interventions for basal cell carcinoma: from evidence to personalized treatment

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In the past 14 years since the publication of the last Cochrane review on interventions for basal cell carcinoma (BCC), the incidence of BCC has continued to rise rapidly, putting a large burden on healthcare systems.[1,2] Thomson *et al.* describe an extensive update of the Cochrane review on interventions for BCC in this issue of the BJD.[3]

Fifty-two randomized controlled trials (RCTs) were included in the analysis to evaluate recurrence rates at 3 and 5 years, and cosmetic outcome of all interventions for BCC. They conclude, not unexpectedly, that surgical excision remains the best treatment in terms of efficacy and that cosmetic result is more often good or excellent following noninvasive therapy. In the 2007 version of this review, Bath-Hextall *et al.* concluded more or less the same, but also stated that many RCTs provided low-certainty evidence.[1] The quality of evidence has improved, but remains of low–moderate certainty in many cases despite the inclusion of 26 new studies, because most data comes from single studies with relatively small sample sizes that led to results with wide confidence intervals.

The new studies mostly concern noninvasive or destructive treatments for low-risk BCCs including imiquimod, 5-fluorouracil, different protocols for photodynamic therapy and laser treatment.[3] An RCT describing a head-to-head comparison of imiquimod and surgical excision showed a 5-year risk of recurrence of 17·5% following imiquimod and 2·2% following surgical excision resulting in an almost eight times higher risk of recurrence following imiquimod (risk ratio 7·73).[4] However, a tumour-free survival rate of 83·6% is generally regarded an acceptable clinical response making imiquimod the best noninvasive alternative to surgical excision.

The most striking gap in the evidence concerns the effectiveness of radiotherapy for BCC: only one RCT that dated back to 1997 was discussed by Thomson *et al.* and it compares radiotherapy with surgical excision for facial BCCs. No recent RCTs are available, even though radiotherapy for high-risk facial BCC has advanced and different treatment protocols are available, probably with improved outcomes.[5,6] More head-to-head comparisons concerning radiotherapy, surgical excision and Mohs surgery for high-risk facial BCCs are needed for conclusive evidence on relative efficacy.

High-quality evidence is required to inform patients on risks and benefits of treatments. A patient's personal situation can be of influence when considering treatment options. Low risk of recurrence and excellent cosmetic outcomes are not always of utmost importance to patients. Other issues, such as risks and side-effects, type of therapy (treatment process), convenience of treatment (travel time and waiting time) and costs were included in several discrete choice experiments.[7] Furthermore, for patients with a limited life-expectancy, watchful-waiting can be a suitable option.[8] Implementing shared decision-making results in well-informed patients with an improved grasp of the risks and benefits of treatments.[9]

To conclude, the updated review on interventions for BCC is a highly valuable and well-executed summary of evidence that identified important gaps in the available evidence and can be used to weigh the risks and benefits of treatments.

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