Conclusions

Treatment with Electrochemotherapy is appropriate for patients suffering with metastatic melanoma stage IIIB/C. The best response is obtained when there are less than 20 lesions, which are less than 3cm in diameter, sited on the lower limbs and with a Breslow thickness of primary melanoma of 1 to 2mm. Local control of melanoma metastases has an important effect on quality of life and improves life expectancy.

Electrochemotherapy can be considered an effective addition to the cancer treatment armamentarium.

References

Rationale

Patients who have advanced metastatic melanoma often present with multiple cutaneous metastases (CM), which are notoriously difficult to treat. These commonly present on the torso and the lower and upper limbs. However, systemic therapy alone can have limited efficacy in the treatment of CM. CM can cause significant morbidity including infection, bleeding, odour and pain. Many patients associate CM with the greatest effect on quality of life.\(^1\)

Studies with Electrochemotherapy in metastatic melanoma patients

Several clinical studies demonstrate the efficacy and safety of Electrochemotherapy treatment with the CLINIPORATOR\(^\text{TM}\) in metastatic melanoma patients. [Table 1]

<table>
<thead>
<tr>
<th>Clinical Experience of Electrochemotherapy on melanoma</th>
<th>Patients OR [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caracò C, BMC Cancer, 2013(^\text{[2]})</td>
<td>60 87</td>
</tr>
<tr>
<td>Solari N, JSQ, 2013(^\text{[3]})</td>
<td>20 55</td>
</tr>
<tr>
<td>Campana LG, BJS, 2012(^\text{[4]})</td>
<td>85 92</td>
</tr>
<tr>
<td>Quaglino P, Ann Surg Oncol, 2008(^\text{[5]})</td>
<td>14 93</td>
</tr>
<tr>
<td>Marty M, EJC, 2006(^\text{[6]})</td>
<td>20 81</td>
</tr>
<tr>
<td>Mir-Bonafé JM, 2014(^\text{[7]})</td>
<td>31 72</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>230 80</strong></td>
</tr>
</tbody>
</table>

[Table 1: Clinical experience of Electrochemotherapy in metastatic melanoma patients]

How effective is Electrochemotherapy?

Campana et al identified that the effectiveness of Electrochemotherapy is determined by the following factors:

- Number and size of the lesions
- Anatomical location
- Breslow depth of primary tumour

These factors help to define which eligible patients respond the best to the treatment and who will have better local progression-free survival and better survival overall.

Patients who show the best response to Electrochemotherapy

![Clinical Experience of  Patients OR Electrochemotherapy  [%]](Quaglino P, Ann Surg Oncol, 2008)\(^5\)

Figure 1: Patients who show the best response to Electrochemotherapy (ECT).

NICE guidelines

NICE published guidance on Electrochemotherapy in March 2013, saying that it may reduce symptoms and improve quality of life for appropriately selected patients. NICE has said that this procedure can be: ‘offered routinely as a palliative treatment option for people with metastases in the skin from tumours of non-skin origin or melanoma...the procedure may reduce symptoms and improve quality of life for people with disease that cannot be treated with, or doesn’t respond to, other treatments.’

Electrochemotherapy in practice

These clinical images show treatment responses in a female patient with numerous cutaneous in-transit metastases located in her left calf [Figure a]. A complete clinical regression of all cutaneous metastases was observed two months after the Electrochemotherapy treatment. This was confirmed by the absence of cutaneous HMB-45+ melanoma cells following a biopsy (Figure b).