# LITERATURE TO DATE ON ELECTROCHEMOTHERAPY IN VETERINARY MEDICINE

## DOG

### BIBLIOGRAPHY AND CASE STUDIES

<table>
<thead>
<tr>
<th>Tumor types</th>
<th>anal sac carcinoma</th>
<th>perineal gland carcinoma</th>
<th>fibromas</th>
<th>fibromasoma</th>
<th>localized lymphoma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Links</strong></td>
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</tr>
</tbody>
</table>

**Electrical protocol (device):**
- 8 biphasic pulses – 50-50μsec/ pulse – 1300V/cm (Spugnini et al.)
- 8 biphasic pulses – 50-50μsec/ pulse – 1300V/cm (Chemopulse)
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**Cases:**

<table>
<thead>
<tr>
<th></th>
<th>1 (14 years old)</th>
<th>1 (10 years old)</th>
<th>1/1 year old</th>
<th>22</th>
<th>6</th>
</tr>
</thead>
</table>

**Observation time:**
- 18 months
- Over 1 year
- 10 months
- 7 years
- 2 years

**Results:**
- complete remission, on incompletely excised tumor
- complete remission, surgery + chemotherapy
- complete remission
- 95% response (in incompletely excised tumor)
- complete response

<table>
<thead>
<tr>
<th>Biology in BLM / Cisplatin CDDP</th>
<th>CDDP</th>
<th>CDDP + mitoxantrone</th>
<th>BLM + CDDP</th>
<th>BLM</th>
<th>BLM</th>
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</thead>
<tbody>
<tr>
<td>Intratumoral / Intravenous</td>
<td>IT</td>
<td>IT</td>
<td>IT</td>
<td>IT</td>
<td>IT</td>
</tr>
<tr>
<td>Session number</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>

**Title:**
- Adjuvant Electrochemotherapy for Incompletely Excised Anal Sac Carcinoma in a Dog
- Electrochemotherapy for the Treatment of Incompletely Excised Perineal Gland Tumors
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<table>
<thead>
<tr>
<th>Author</th>
<th>Enrico P. Spugnini et al</th>
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<tr>
<th>Tumor types</th>
<th>mast cell tumor</th>
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<th>melanoma</th>
<th>perianal tumor</th>
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**Cases:**

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<tr>
<th></th>
<th>25</th>
<th>28</th>
<th>1 (6 years old)</th>
<th>12</th>
<th>21</th>
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**Observation time:**
- over 3 years
- over 22 months
- 2 months
- Over 2 years
- Over 3 years

**Results:**
- 62.5% complete response (compared with surgery)
- 65% response rate on surgical scar
- volume reduction of 50%
- 92% objective response
- 94% objective response

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<td>2</td>
<td>4</td>
<td>1 to 4</td>
<td>1 to 3</td>
</tr>
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**Title:**
- Electrochemotherapy Compared to Surgery for Treatment of Canine Mast Cell Tumours
- Adjuvant Electrochemotherapy for the Treatment of Incompletely Excised Canine Mast Cell Tumours
- Local Control of Distinct Metastasis after Electrochemotherapy of Canine Anal Melanoma
- Effective Treatment of Perineal Tumours in Dogs with Electrochemotherapy
- Electrochemotherapy is highly effective for the treatment of canine perineal and anal tumours and epitheliomas

<table>
<thead>
<tr>
<th>Author</th>
<th>Veronika Kaden et al</th>
<th>Enrico P. Spugnini et al</th>
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<th>Natasa Tozon et al</th>
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