Alfredo Vellido : www.lsi.upc.edu/~avellido

AIDTumour
www.lsi.upc.edu/~websoco/AIDTumour
• Hay más de 100 tipos de tumores cerebrales ...

## WHO Classification of Tumours of the Nervous System

### TUMOURS OF NEUROEPITHELIAL TISSUE

<table>
<thead>
<tr>
<th>Tumour Type</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astrocytoma</td>
<td>9400/3</td>
</tr>
<tr>
<td>Diffuse astrocytoma</td>
<td>9400/3</td>
</tr>
<tr>
<td>Pleomorphic astrocytoma</td>
<td>9400/3</td>
</tr>
<tr>
<td>Glioblastoma</td>
<td>9451/3</td>
</tr>
<tr>
<td>Giant cell glioblastoma</td>
<td>9451/3</td>
</tr>
<tr>
<td>Gliosarcoma</td>
<td>9451/3</td>
</tr>
<tr>
<td>Pilocytic astrocytoma</td>
<td>9452/3</td>
</tr>
<tr>
<td>Pilocytic astrocytoma of the optic nerve</td>
<td>9452/3</td>
</tr>
<tr>
<td>Pilocytic astrocytoma of the thalamus</td>
<td>9452/3</td>
</tr>
<tr>
<td>Subependymal giant cell astrocytoma</td>
<td>9594/1</td>
</tr>
<tr>
<td>Oligodendroglioma</td>
<td>9459/3</td>
</tr>
<tr>
<td>Anaplastic oligodendroglioma</td>
<td>9459/3</td>
</tr>
<tr>
<td>Mixed gliomas</td>
<td>9392/3</td>
</tr>
<tr>
<td>Oligodendroglioma</td>
<td>9392/3</td>
</tr>
<tr>
<td>Anaplastic oligodendroglioma</td>
<td>9392/3</td>
</tr>
<tr>
<td>Epithelial tumours of the meninges</td>
<td>9366/3</td>
</tr>
<tr>
<td>Epidermoid tumour</td>
<td>9366/3</td>
</tr>
<tr>
<td>Cerumbium</td>
<td>9366/3</td>
</tr>
<tr>
<td>Clear cell</td>
<td>9366/3</td>
</tr>
<tr>
<td>Tumours of the ependyma</td>
<td>9366/3</td>
</tr>
<tr>
<td>Anaplastic ependymoma</td>
<td>9366/3</td>
</tr>
<tr>
<td>Myxopapillary ependymoma</td>
<td>9366/3</td>
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<tr>
<td>Subependymoma</td>
<td>9366/3</td>
</tr>
<tr>
<td>Chordoid glioma</td>
<td>9392/3</td>
</tr>
<tr>
<td>Chordoid glioma of the thalamus</td>
<td>9392/3</td>
</tr>
<tr>
<td>Gliomas of the pineal region</td>
<td>9320/3</td>
</tr>
<tr>
<td>Glioblastoma</td>
<td>9393/3</td>
</tr>
<tr>
<td>Glioblastoma of the 3rd ventricle</td>
<td>9441/3</td>
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</table>

### TUMOURS OF THE MENINGS

<table>
<thead>
<tr>
<th>Tumour Type</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningioma</td>
<td>9320/3</td>
</tr>
<tr>
<td>Meningeal sarcoma</td>
<td>9320/3</td>
</tr>
<tr>
<td>Fibrous (fibroblastic)</td>
<td>9320/3</td>
</tr>
<tr>
<td>Transitional (mixed)</td>
<td>9320/3</td>
</tr>
<tr>
<td>Pleomorphic</td>
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</tr>
<tr>
<td>Anaplastic</td>
<td>9320/3</td>
</tr>
<tr>
<td>Myxoid</td>
<td>9320/3</td>
</tr>
<tr>
<td>Sebaceous</td>
<td>9320/3</td>
</tr>
<tr>
<td>Lymphoplasmacytoid</td>
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</tr>
<tr>
<td>Metaplastic</td>
<td>9320/3</td>
</tr>
<tr>
<td>Clear cell</td>
<td>9320/3</td>
</tr>
<tr>
<td>Chordoid</td>
<td>9320/3</td>
</tr>
<tr>
<td>Angioblastic</td>
<td>9320/3</td>
</tr>
<tr>
<td>Papillary</td>
<td>9320/3</td>
</tr>
<tr>
<td>Biphasic</td>
<td>9320/3</td>
</tr>
<tr>
<td>Anaplastic meningioma</td>
<td>9320/3</td>
</tr>
<tr>
<td>Schwannoma (Neurinoma,Neurinoma)</td>
<td>9660/0</td>
</tr>
<tr>
<td>Cellular</td>
<td>9660/0</td>
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<tr>
<td>Plexiform</td>
<td>9660/0</td>
</tr>
<tr>
<td>Neurilemmomatosis</td>
<td>9660/0</td>
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### METASTATIC TUMOURS

<table>
<thead>
<tr>
<th>Tumour Type</th>
<th>Reference</th>
</tr>
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<tbody>
<tr>
<td>Chondrosarcoma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Osteosarcoma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Osteosarcoma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Chondrosarcoma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Haemangioma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Epithelioid haemangiopericytoma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Haemangiopericytoma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Angiosarcoma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Kaposi sarcoma</td>
<td>9293/0</td>
</tr>
<tr>
<td>Primary melanocytic lesions</td>
<td>9293/0</td>
</tr>
<tr>
<td>Diffuse melanocytic</td>
<td>6728/3</td>
</tr>
<tr>
<td>Melanocytic</td>
<td>6728/3</td>
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<tr>
<td>Malignant melanoma</td>
<td>6728/3</td>
</tr>
<tr>
<td>Mesenchymal sarcomas</td>
<td>6728/3</td>
</tr>
</tbody>
</table>

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MRI puede ser IMPRECISO

- MRI clasificación: *Glial tumour*

- DIAGNOSIS: *Oligodendroglioma*
La clasificación por MRI puede ser INCORRECTA

- MRI clasificación: *Glial tumour*
- DIAGNOSIS: *Metastasis*
Creatina

\[
\text{Structure: } \text{C-C-N-C-NH}_3^+ \quad \text{H}_2 \quad \text{CH}_3 \quad \text{NH}
\]

Mean spectra taken from http://azizu.uab.es/INTERPRET
Aportaciones diferenciales de AIDTumour

- Diagnosis robusta
- Visualización avanzada
- Detección de casos atípicos
- Selección de metabolitos relevantes
- Definición de reglas de caracterización de tumores