FIBROBLASTIC PROLIFERATIONS
FIBROBLASTS

• Spindled cells
• Produce extracellular fibres (collagen & elastin)
• Produce ground substance (glycosaminoglycans)
FIBROBLASTIC PROLIFERATIONS

- Wound healing/scar tissue/granulation tissue
- Tumour-like reactive proliferations
- Benign tumours (fibroma)
- Malignant tumours (fibrosarcoma)
<table>
<thead>
<tr>
<th>Cell type</th>
<th>Cell shape</th>
<th>Nucleus</th>
<th>Cytoplasm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibroblasts</td>
<td>SPINDLED</td>
<td>TAPERED</td>
<td>BASOPHILIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Active)</td>
</tr>
<tr>
<td>Myofibroblasts</td>
<td>SPINDLED</td>
<td>TAPERED</td>
<td>BASOPHILIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Active)</td>
</tr>
<tr>
<td>Smooth muscle cells</td>
<td>SPINDLED</td>
<td>CIGAR-SHAPED</td>
<td>EOSINOPHILIC</td>
</tr>
<tr>
<td></td>
<td>Fibroblasts</td>
<td>Myofibroblasts</td>
<td>Smooth Muscle Cells</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------</td>
<td>----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>R.E.R.</td>
<td>++</td>
<td>+</td>
<td>Scanty</td>
</tr>
<tr>
<td>Pinocytosis</td>
<td>-</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Bundles of Filaments</td>
<td>-</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Dense bodies</td>
<td>-</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Basal lamina</td>
<td>-</td>
<td>Incomplete</td>
<td>Complete</td>
</tr>
<tr>
<td></td>
<td>Fibroblasts</td>
<td>Myofibroblasts</td>
<td>Smooth Muscle Cells</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>SMA</td>
<td>-</td>
<td>+/-</td>
<td>++</td>
</tr>
<tr>
<td>Calponin</td>
<td>-</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Desmin</td>
<td>-</td>
<td>-/+</td>
<td>++</td>
</tr>
<tr>
<td>h. Caldesmon</td>
<td>-</td>
<td>-</td>
<td>++</td>
</tr>
</tbody>
</table>
MYOFIBROBLAST HETEROGENEITY

- Vimentin
- Vimentin / Actin
- Vimentin / Actin / Desmin
- Vimentin / Desmin
FIBROBLASTS

- Spindled cells
- Produce extracellular fibres (collagen & elastin)
- Produce ground substance (glycosaminoglycans)
NODULAR FASCIITIS

- Young adults
- Growth over a few weeks
- Forearm
- Fascia, subcutis, muscle
NF VARIANTS

- Dermal fasciitis
- Intravascular fasciitis
- Cranial fasciitis
PROLIFERATIVE FASCIITIS

- Middle-aged adults
- Subcutis of extremities
- Rapid growth
- Proliferative myositis (flat muscles of trunk/shoulder)
ISCHAEMIC FASCIITIS

(Atypical decubital fibroplasia)

• Elderly
• Pressure points
• Subcutis
• No ulceration
MYOSITIS OSSIFICANS
PSEUDOSARCOMATOUS MYOFIBROBLASTIC PROLIFERATIONS

- Urinary bladder
- 25% previous trauma
- Reactive fibroblasts
- Muscle markers positive
- Often cytokeratin positive
- Sometimes ALK positive
FIBROBLASTIC LESIONS

SUMMARY

• Nodular fasciitis
• Proliferative fasciitis
• Ischaemic fasciitis
• Pseudo-sarcomatous myofibroblastic proliferations