

## Chapter 24

# Tumors of special senses

24.1 Basal cell carcinoma of eye lid.

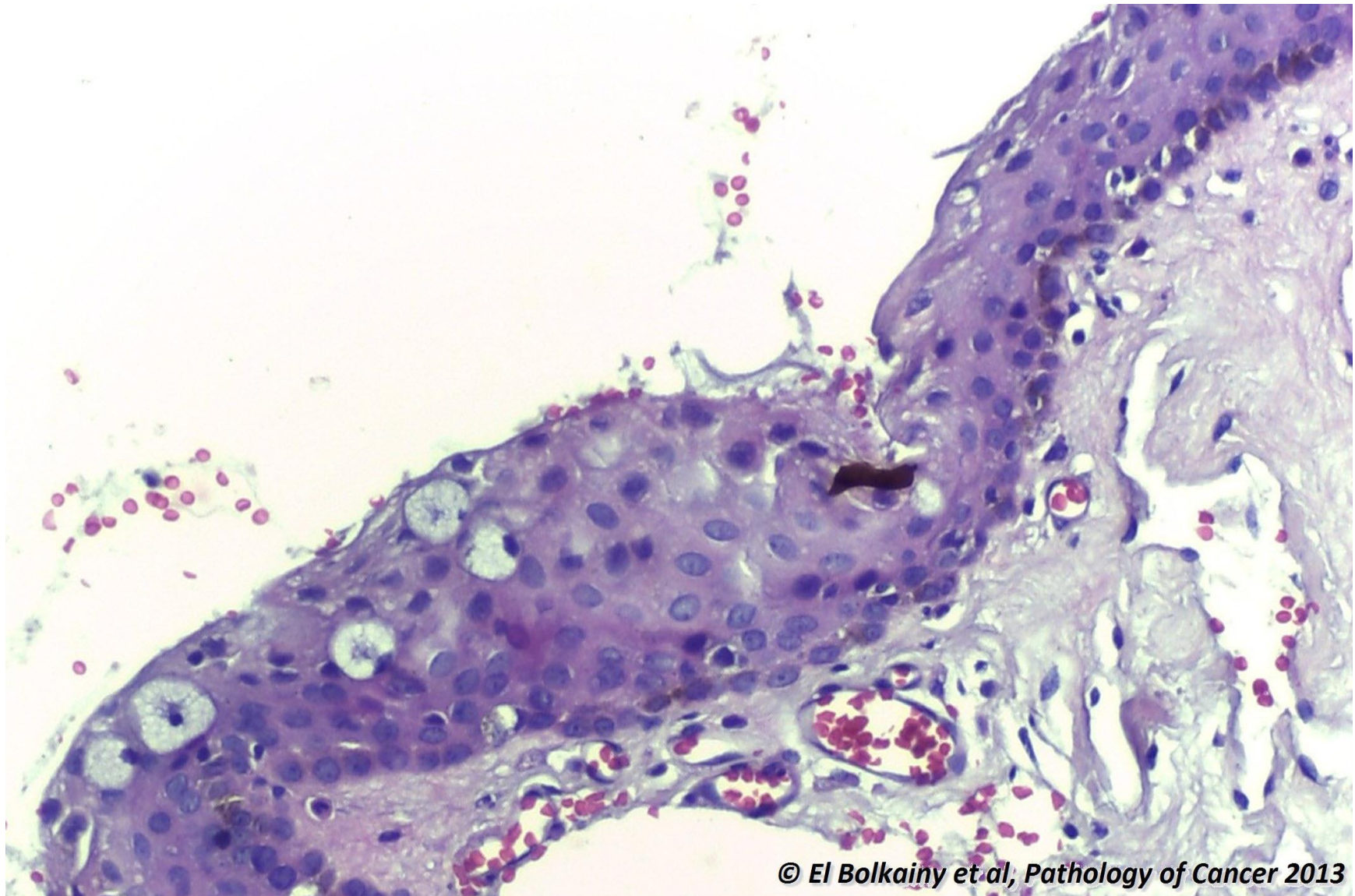


**Picture 24-1** Basal cell carcinoma of eye lid. **A** Gross, enucleation specimen of advanced basal cell carcinoma of the upper eye lid invading the globe. **B** Histology, peripheral palisading of neoplastic basal cells is evident.

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## 24.2 Histology of normal conjunctiva.



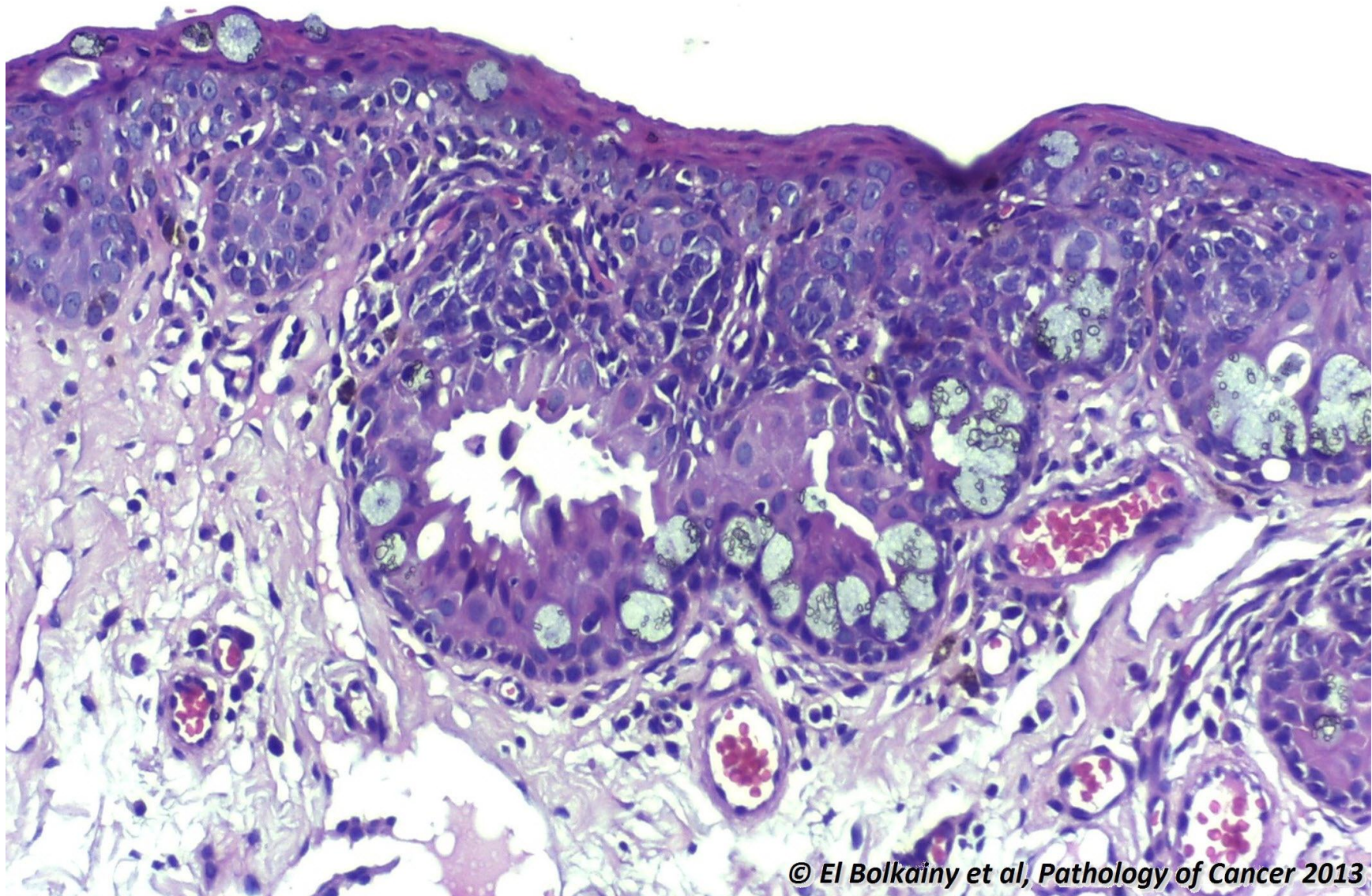
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**Picture  
24-2**

**Histology of normal conjunctiva.** The squamous surface epithelium also contains few columnar epithelium.



### 24.3 Histology of normal conjunctiva.

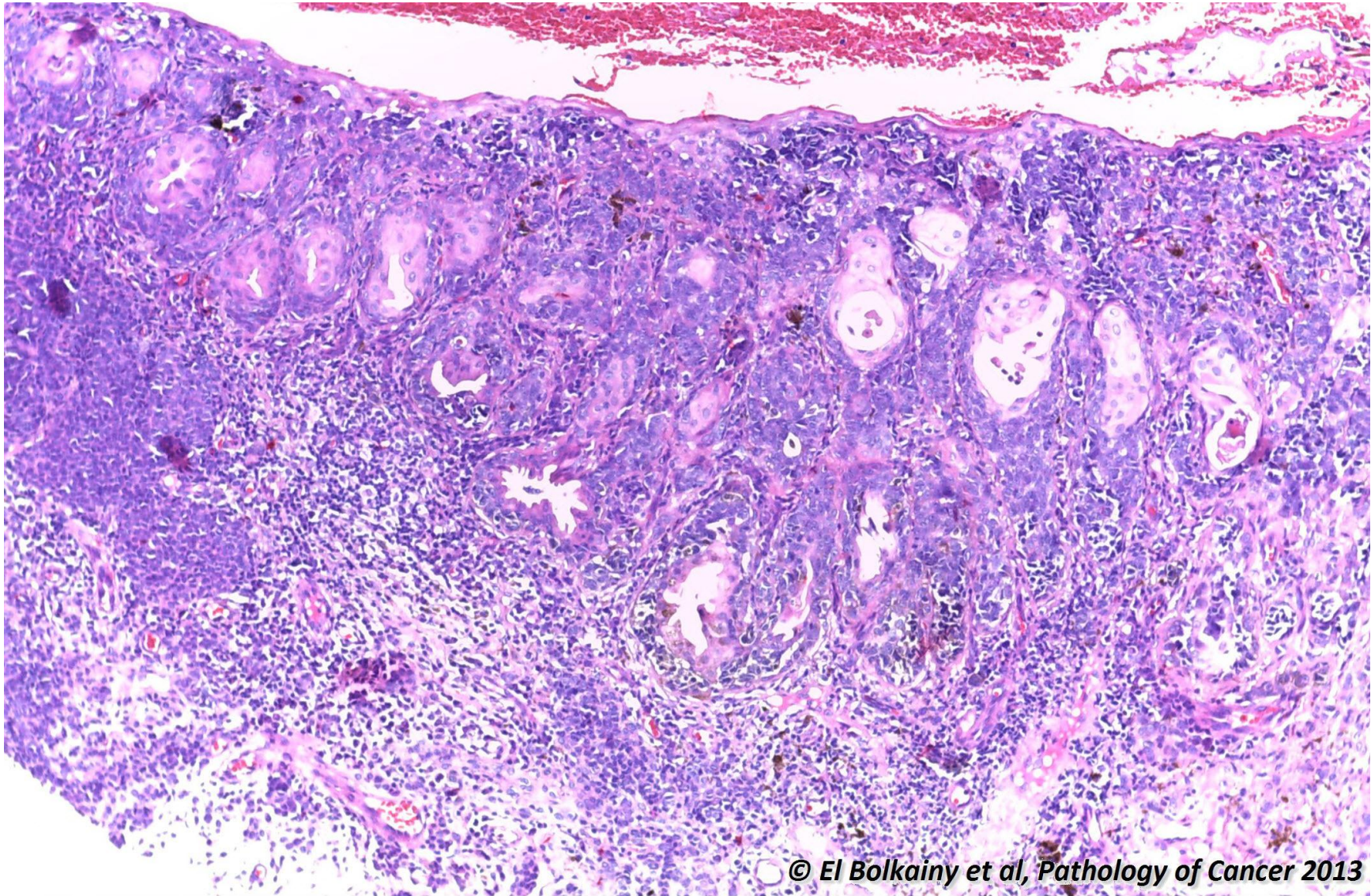


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**Picture 24-3** Histology of normal conjunctiva. Mucin secreting columnar epithelium is present among the surface epithelium, as well as, small subepithelial glands in the stroma.



## 24.4 Benign conjunctival compound nevus, histology.

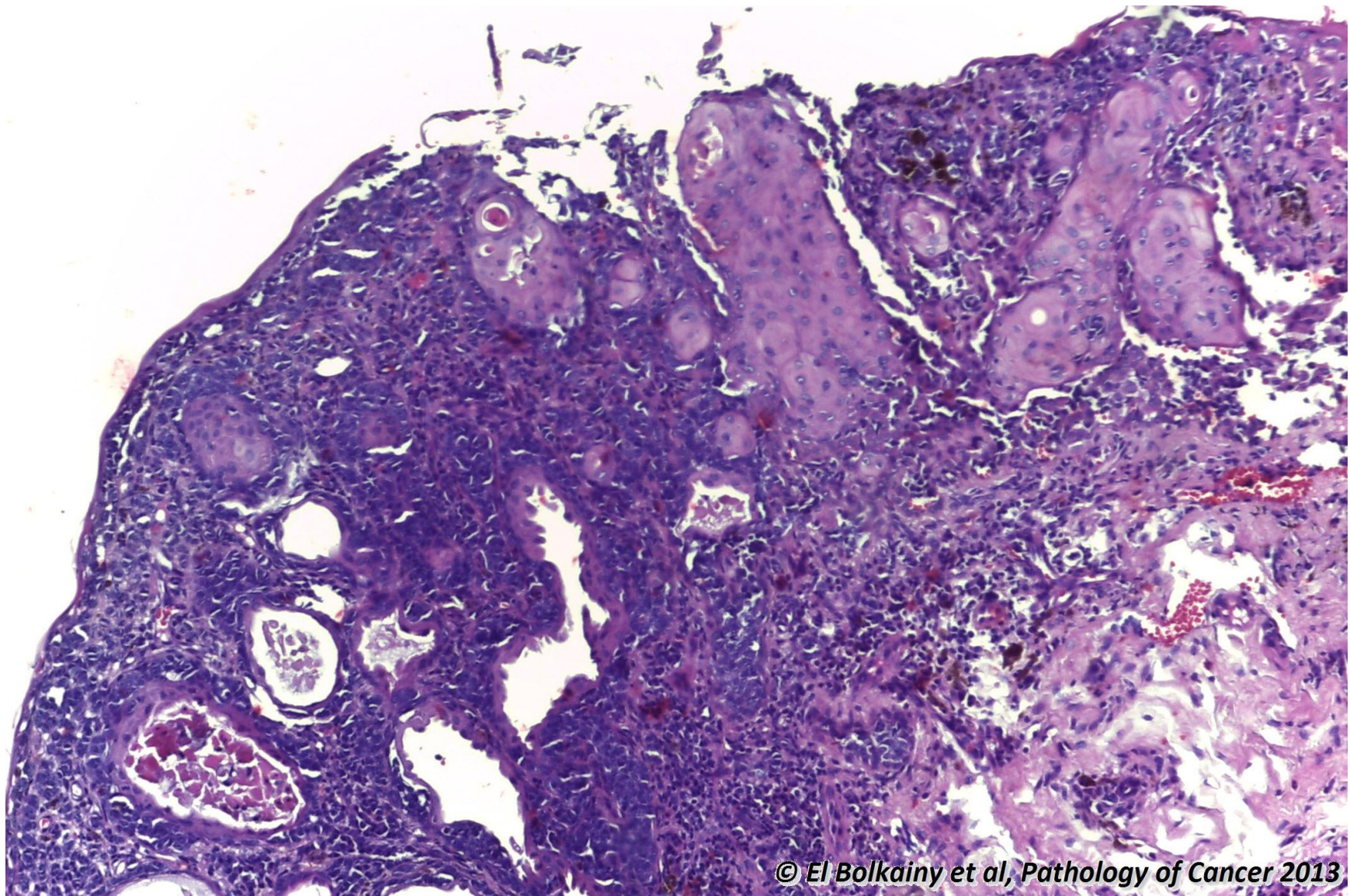


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**Picture 24-4** Benign conjunctival compound nevus, histology. It contains both junctional and stromal components which are rather indistinct. Factors favoring benign nature is the presence of subepithelial glands as well as evidence of cell maturation (deeper melanocytes are smaller than superficial melanocytes).



24.5 Benign conjunctival nevus, histology.

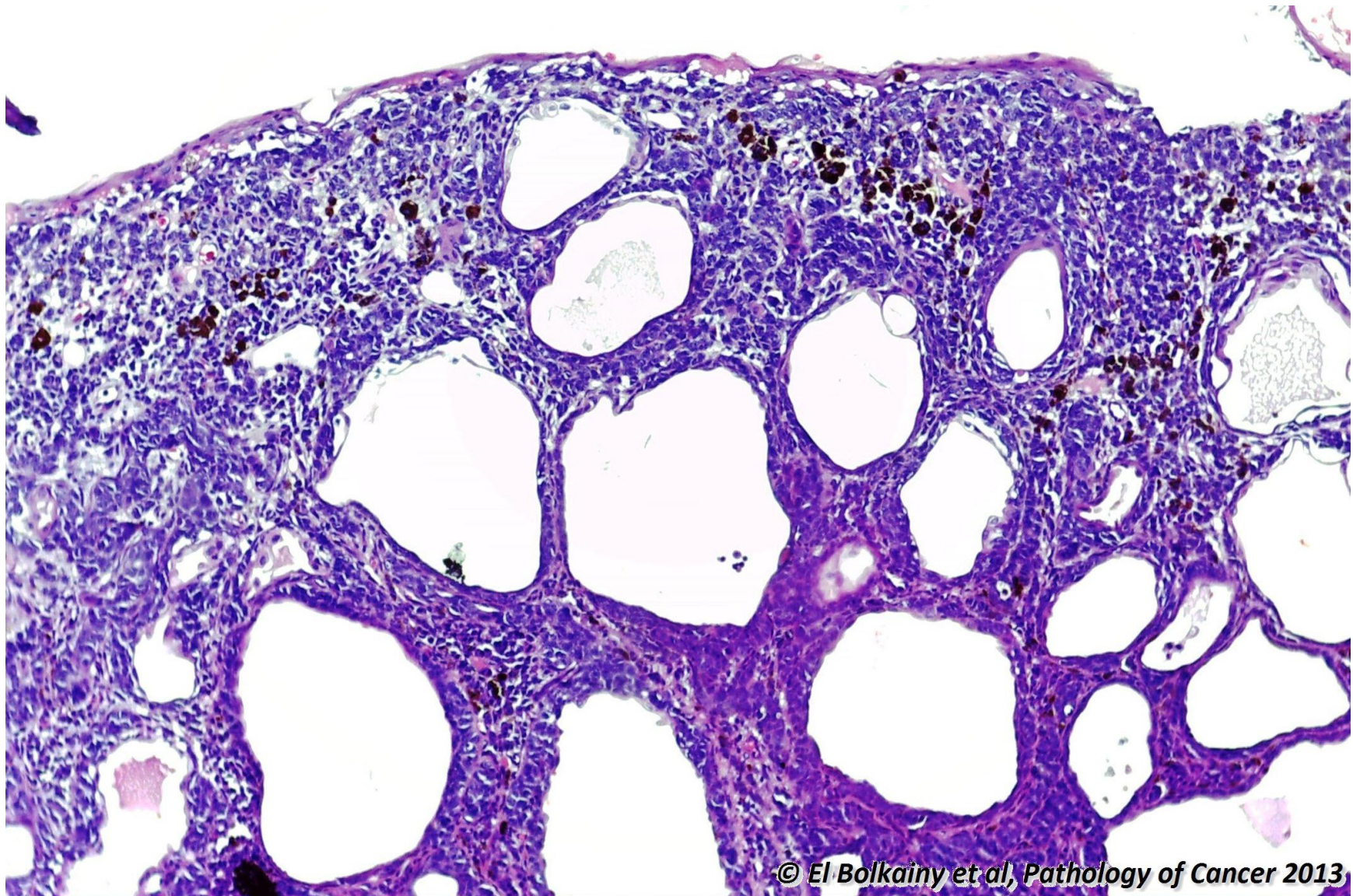


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**Picture 24-5** Benign conjunctival nevus, histology. The nevus cells are associated with mucin-secreting cells, a feature favoring a benign rather than a malignant melanocytic tumor.



24.6 Cystic compound nevus of conjunctiva, histology.

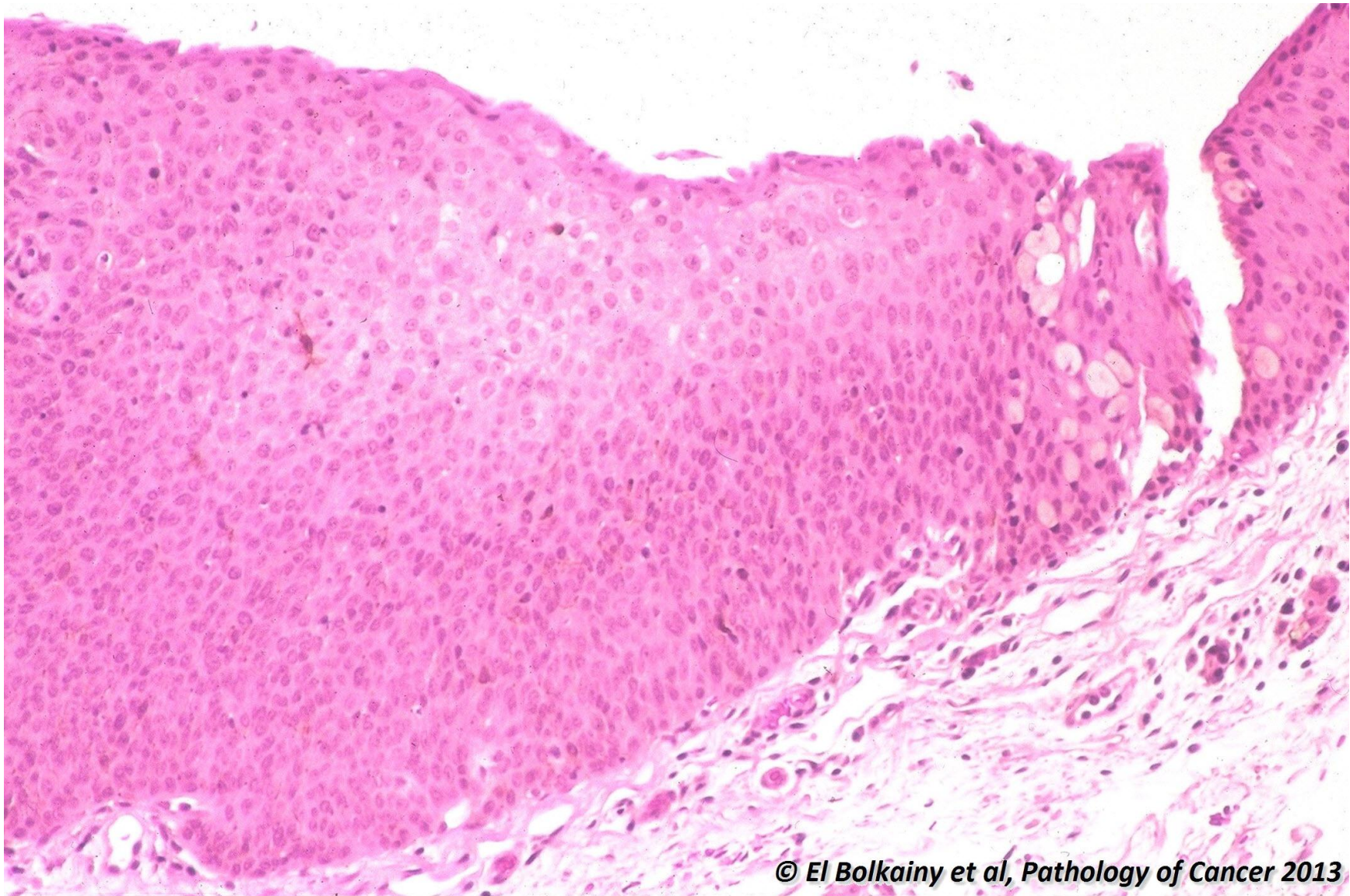


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**Picture 24-6** Cystic compound nevus of conjunctiva, histology. The nevus cells are associated with preserved and cystic subconjunctival glands. This picture supports the diagnosis of a benign nevus.



24.7 Squamous cell carcinoma in situ of conjunctiva (Bowen disease), histology.

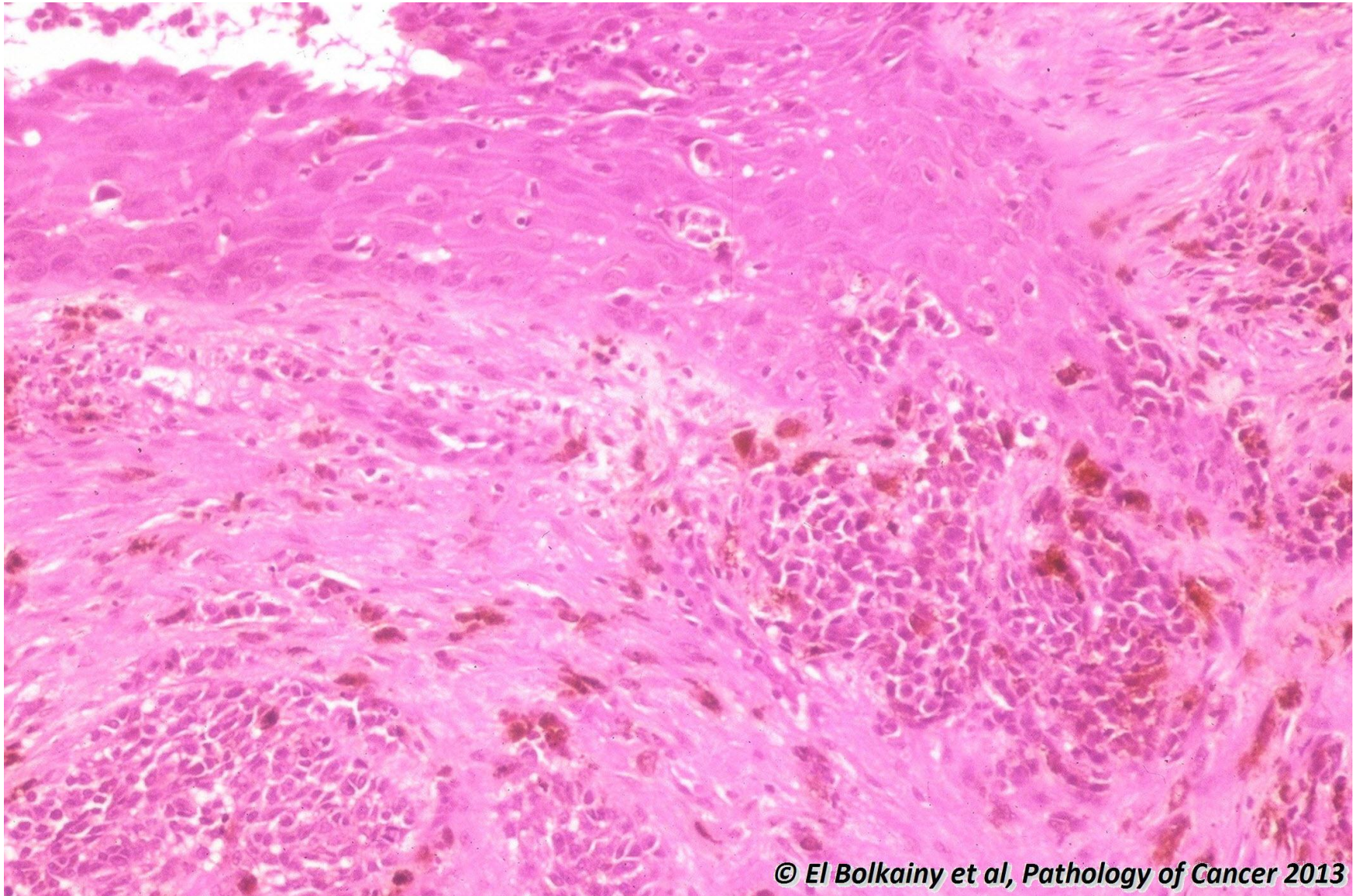


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**Picture 24-7** Squamous cell carcinoma in situ of conjunctiva (Bowen disease), histology. Surface squamous epithelium is totally replaced by malignant cells, but no invasion of basement membrane. Immunostains: pan cytokeratin positive, S-100 negative.



## 24.8 Malignant melanoma of conjunctiva, histology.

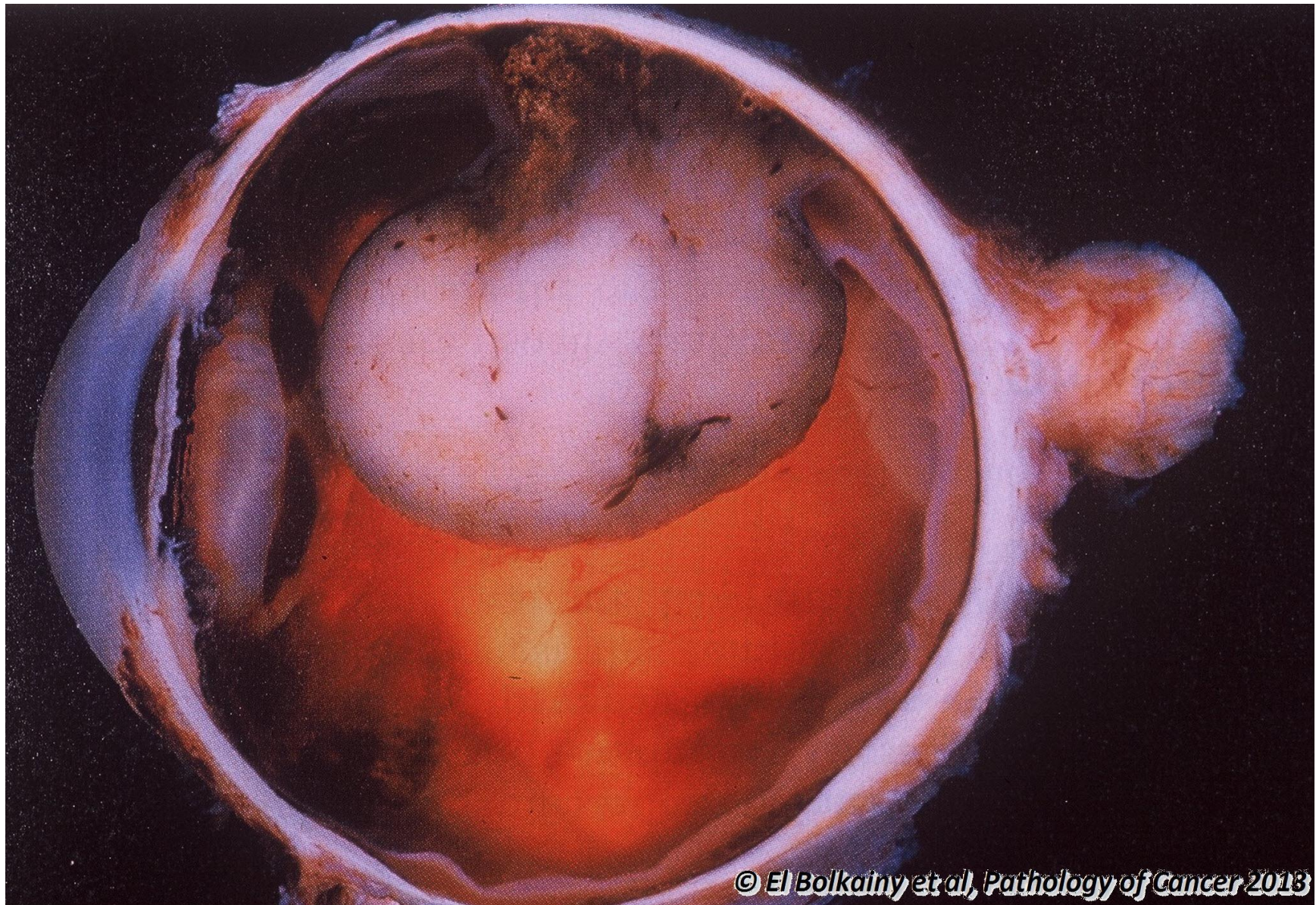


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**Picture 24-8** **Malignant melanoma of conjunctiva, histology.** There is destructive invasion by the tumor (subconjunctival glands absent and soft tissue invaded). No maturation of tumor cells (same large cell size in both superficial and deep parts of the tumor). Immunostains: melan-A and S-100 positive.



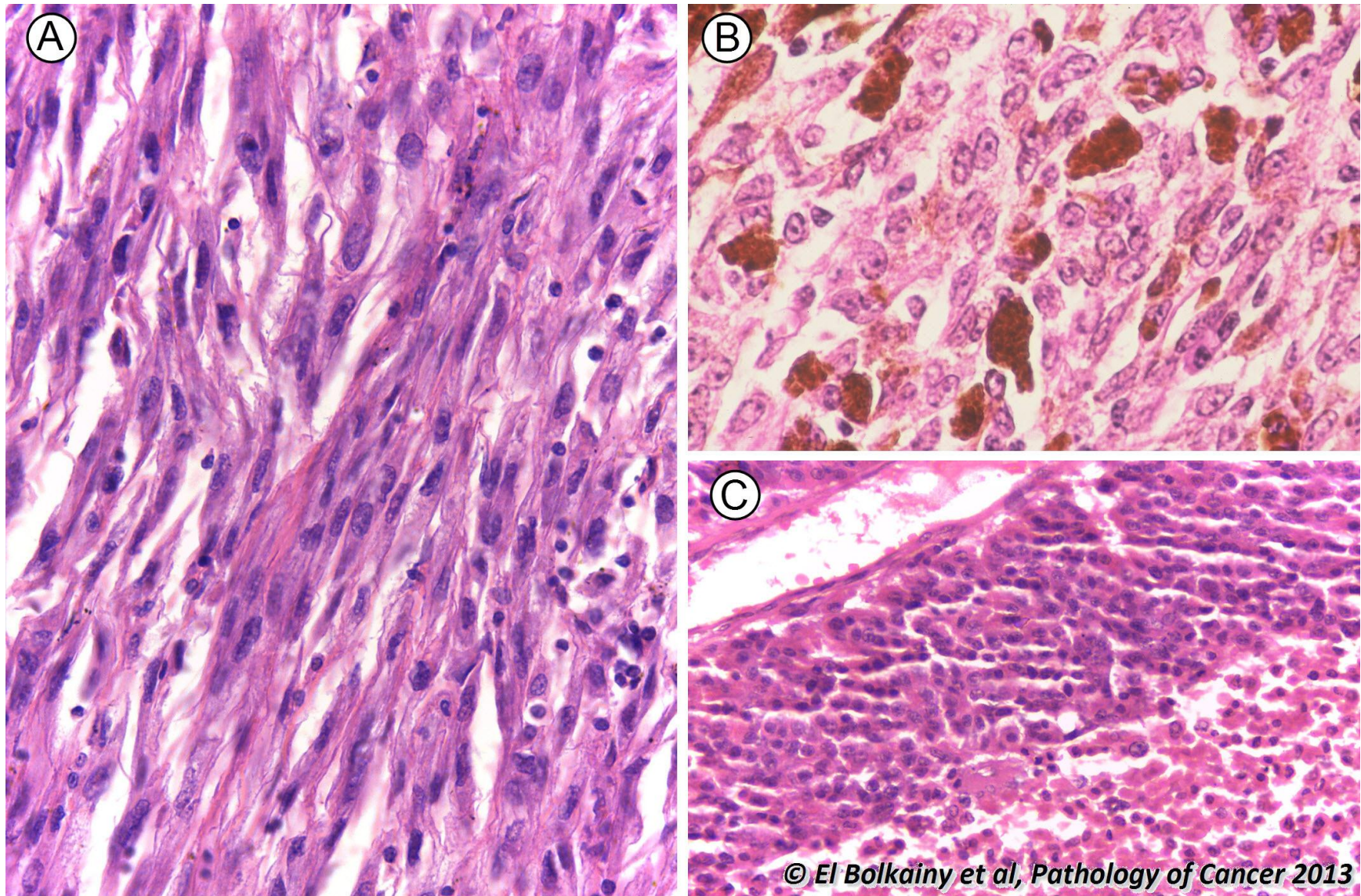
24.9 Choroidal malignant melanoma, gross features, enucleation specimen.



**Picture 24-9** Choroidal malignant melanoma, gross features, enucleation specimen. A tumor mass of gray and brown color is evident arising from upper choroidal lining of the globe.



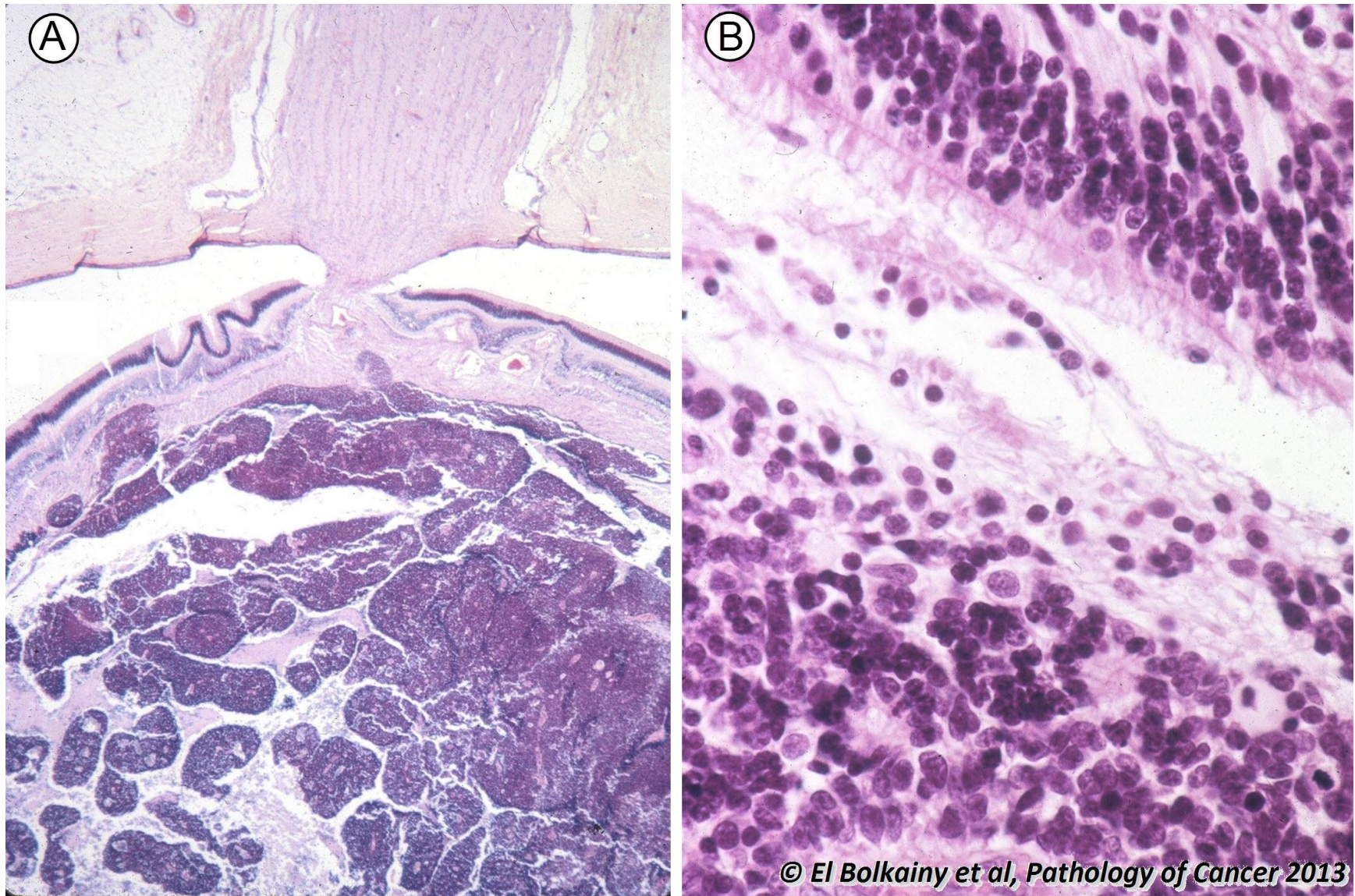
24.10 Choroidal malignant melanoma, histology of subtypes.



**Picture 24-10** Choroidal malignant melanoma, histology of subtypes. **A** Spindle A: spindle cells with indistinct nucleoli. **B** Spindle B: spindle cells with distinct nucleoli. **C** Epithelioid : polygonal epithelioid cells with prominent nucleoli.



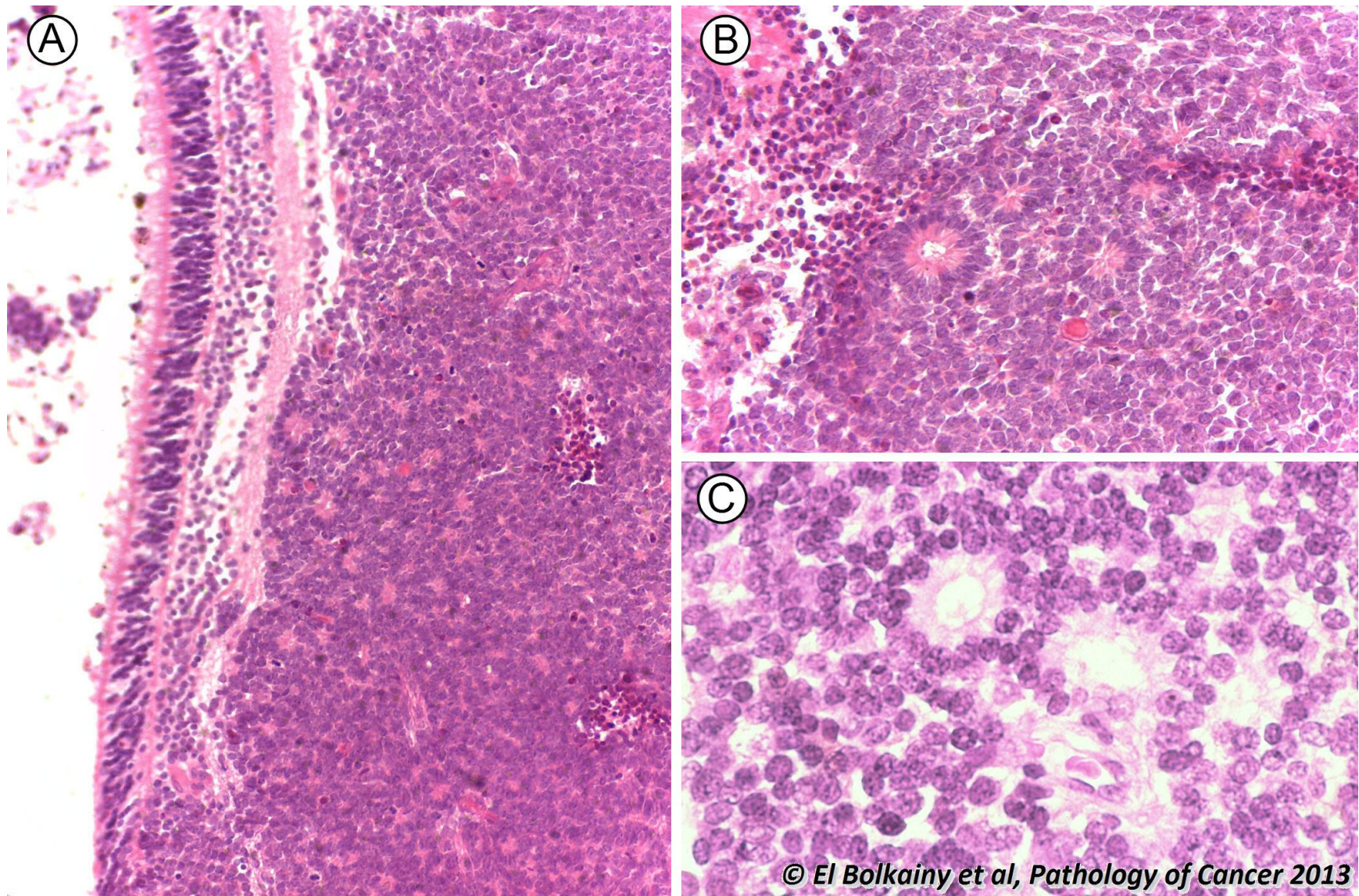
24.11 Retinoblastoma, rosettes, histology.



**Picture 24-11** Retinoblastoma, rosettes, histology. True rosettes with central lumen (Flexner-Wintersteiner type) is most common and diagnostic of retinoblastoma. **A** Low power. **B** High power.



24.12 Retinoblastoma grading, histology.



**Picture 24-12** Retinoblastoma grading, histology. A, B and C Tumors with numerous rosettes are considered well differentiated. Poorly differentiated tumors lack rosettes and show focal necrosis.



24.13 Retinal hamartoma, histology.



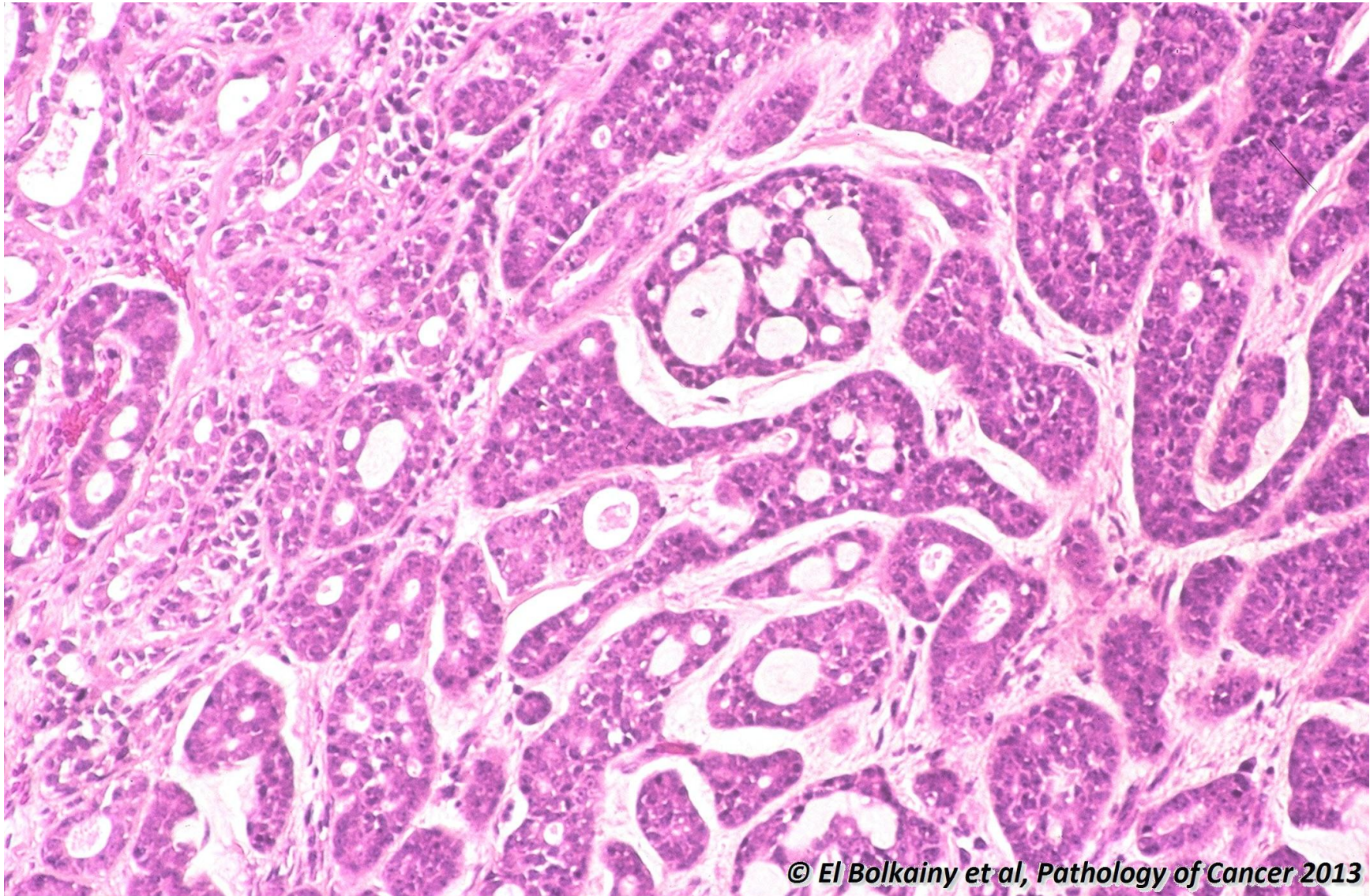
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**Picture  
24-13**

**Retinal hamartoma, histology.** This developmental malformation results in cat's eye reflex (leukocoria) and hence an important differential diagnosis of retinoblastoma. This lesion shows retinal tissue with photoreceptors differentiation, but, malformed crowded complex pattern.



24.14 Lacrimal gland, adenoid cystic carcinoma, histology.

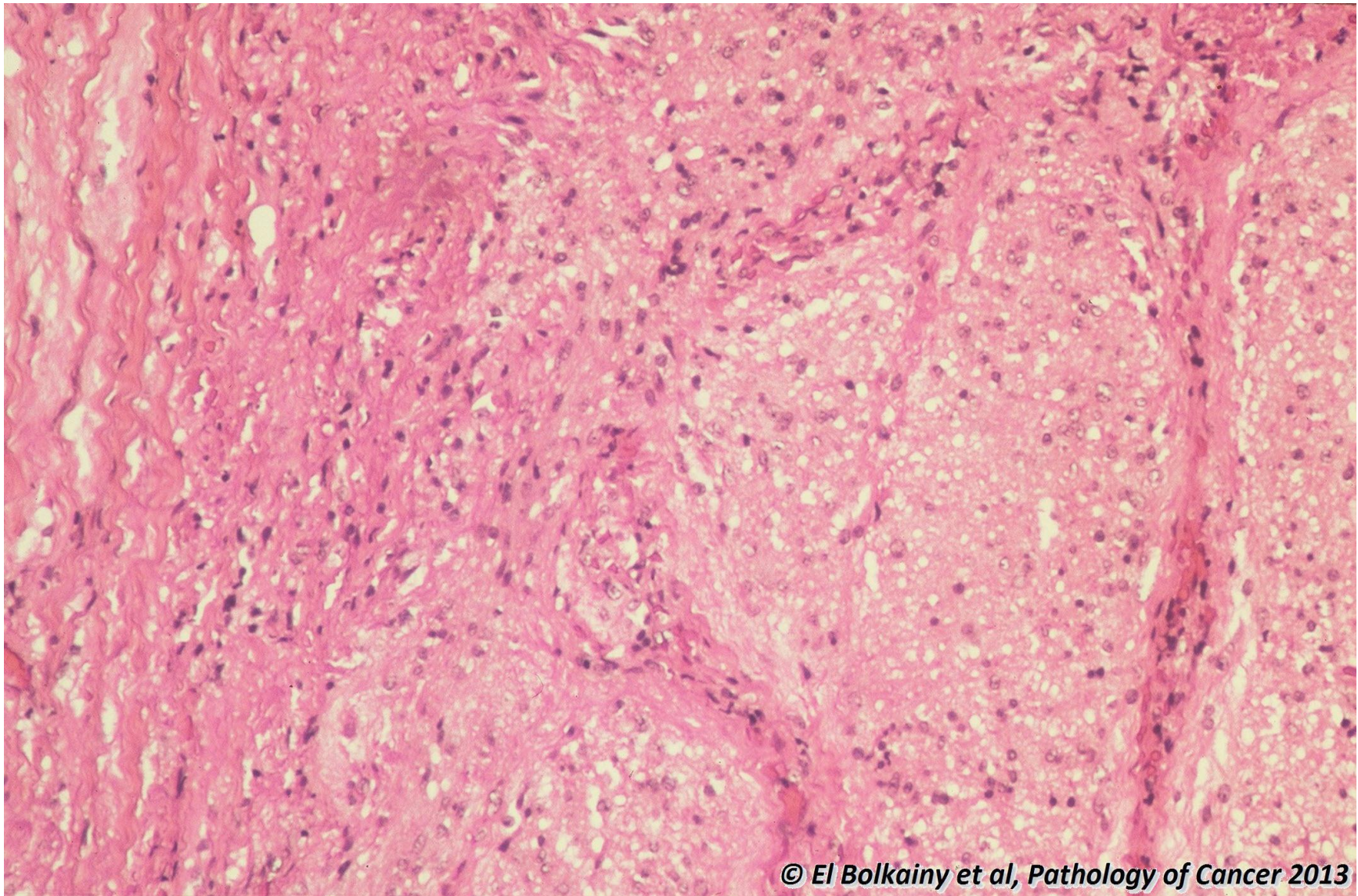


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**Picture 24-14** Lacrimal gland, adenoid cystic carcinoma, histology. A cylindromatous pattern is evident. Lacrimal gland tumors are exactly similar to salivary gland neoplasms.



24.15 Optic nerve pilocytic astrocytoma (so-called optic glioma), histology.

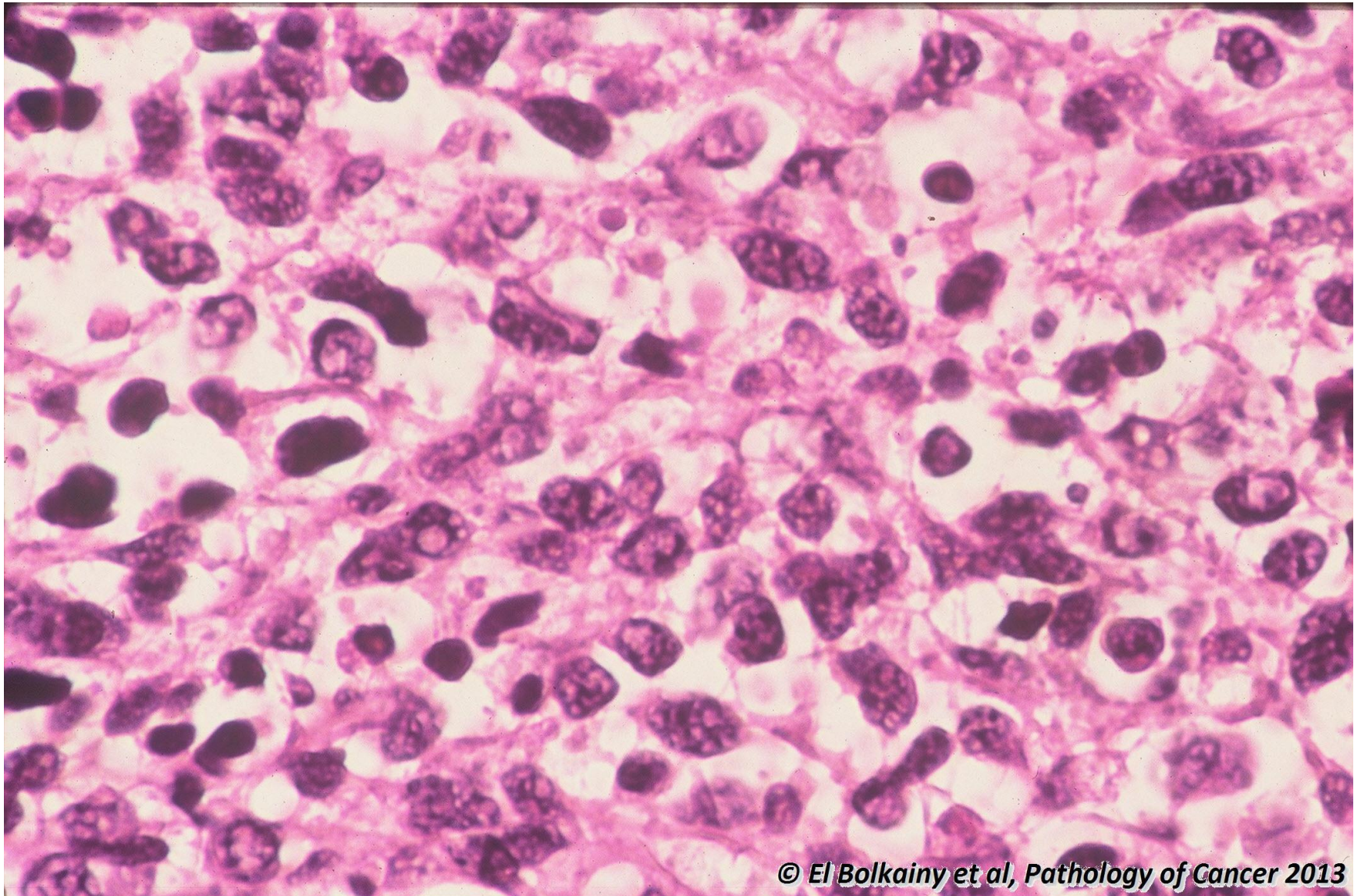


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**Picture 24-15** Optic nerve pilocytic astrocytoma (so-called optic glioma), histology. This low-grade tumor (WHO grade I) shows a characteristic biphasic pattern of spindle and loose astroglial cells. Immunostain: positive for GFAP.



24.16 Rhabdomyosarcoma of orbit, histology.

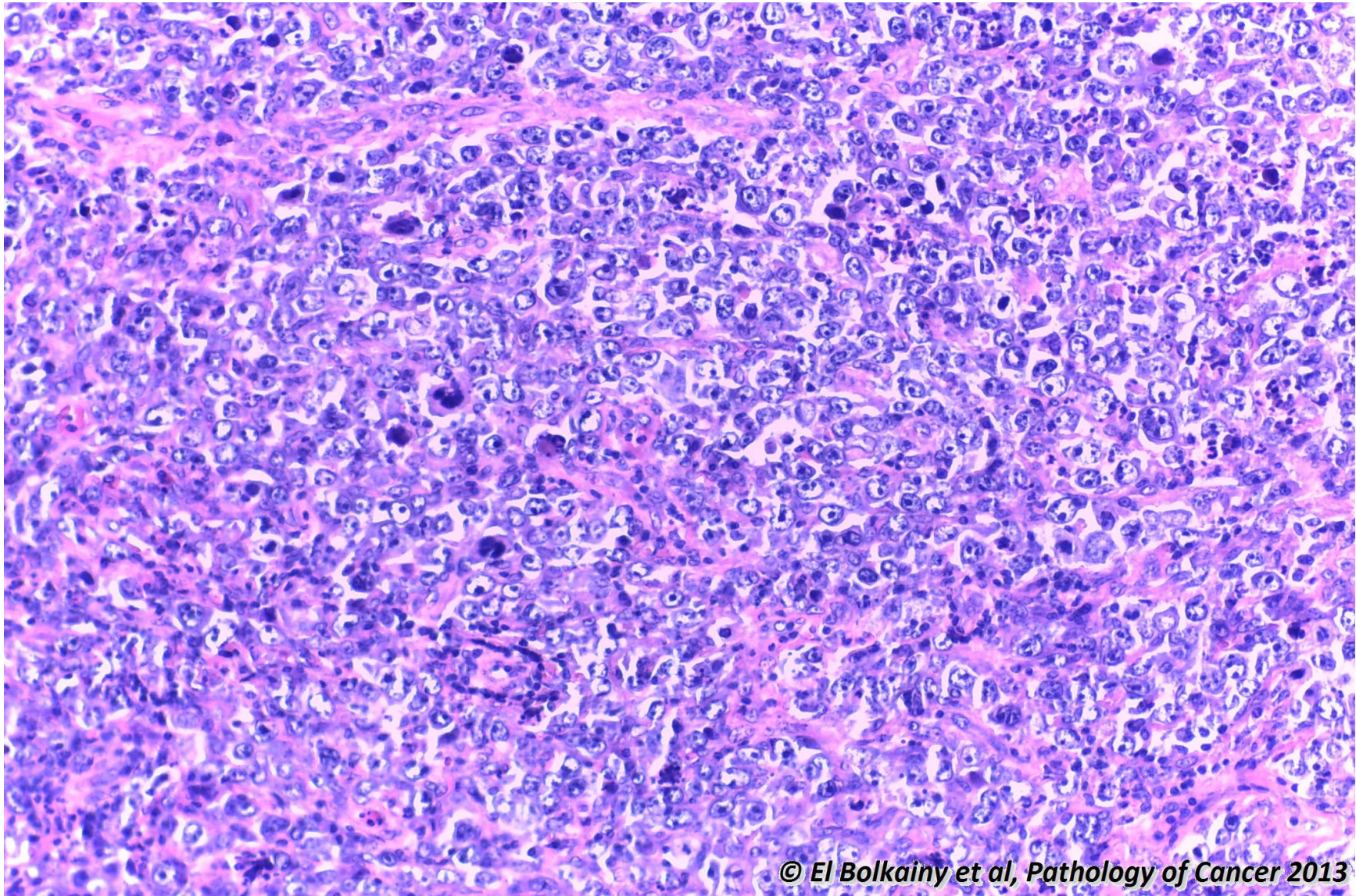


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**Picture 24-16** Rhabdomyosarcoma of orbit, histology. This is the most common primary soft tissue of orbit in children. The cells are embryonic with strap-shaped eosinophilic cytoplasm, spindle and giant cells. Immunostain: positive for desmin.



24.17 Large cell non-Hodgkin lymphoma of orbit.

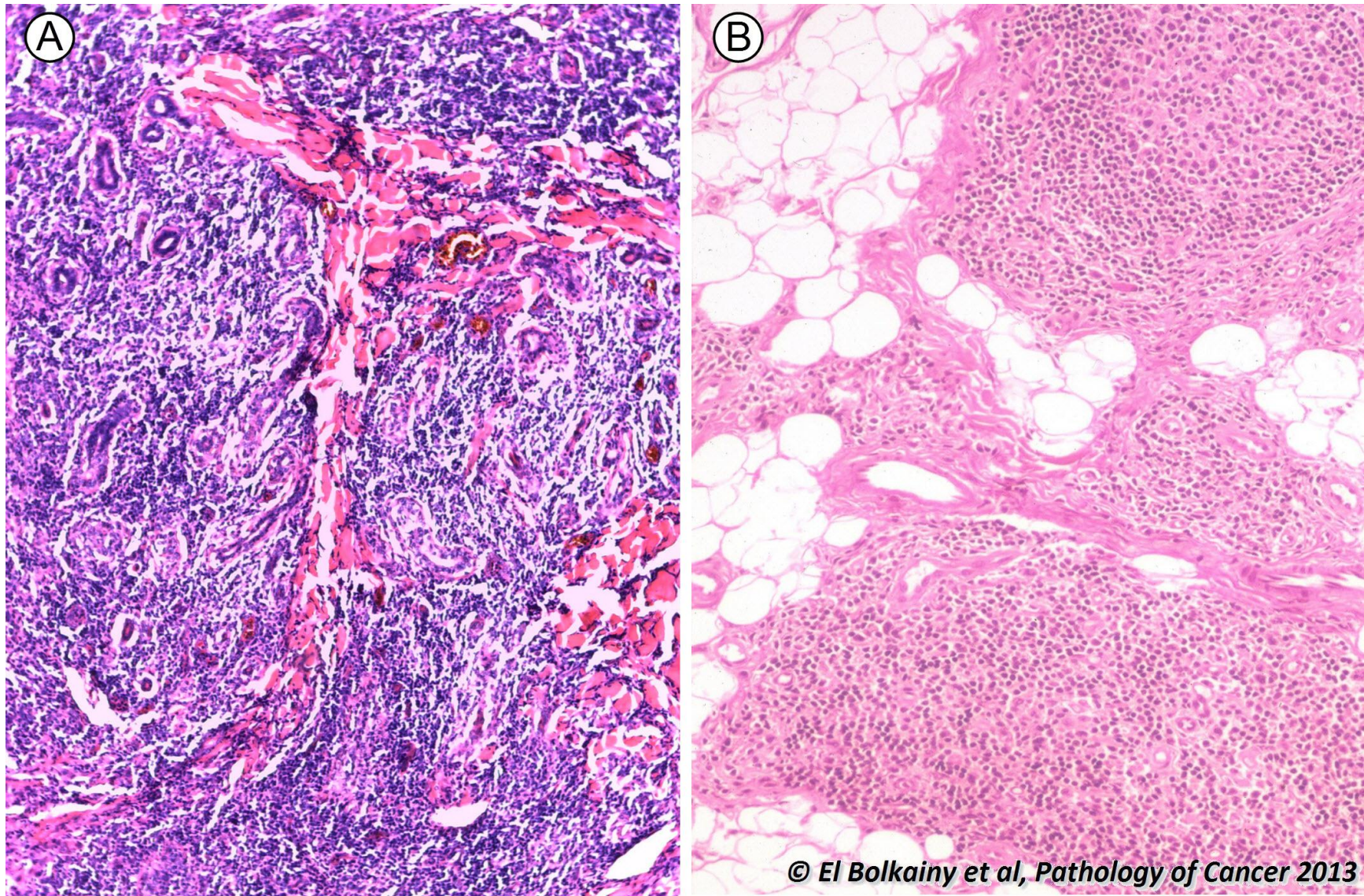


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**Picture 24-17** Large cell non-Hodgkin lymphoma of orbit. A uniform population of large lymphoid cells, diffuse pattern and avascular stroma. Immunostain: monophenotypic (either CD 20 or CD 3 positive).



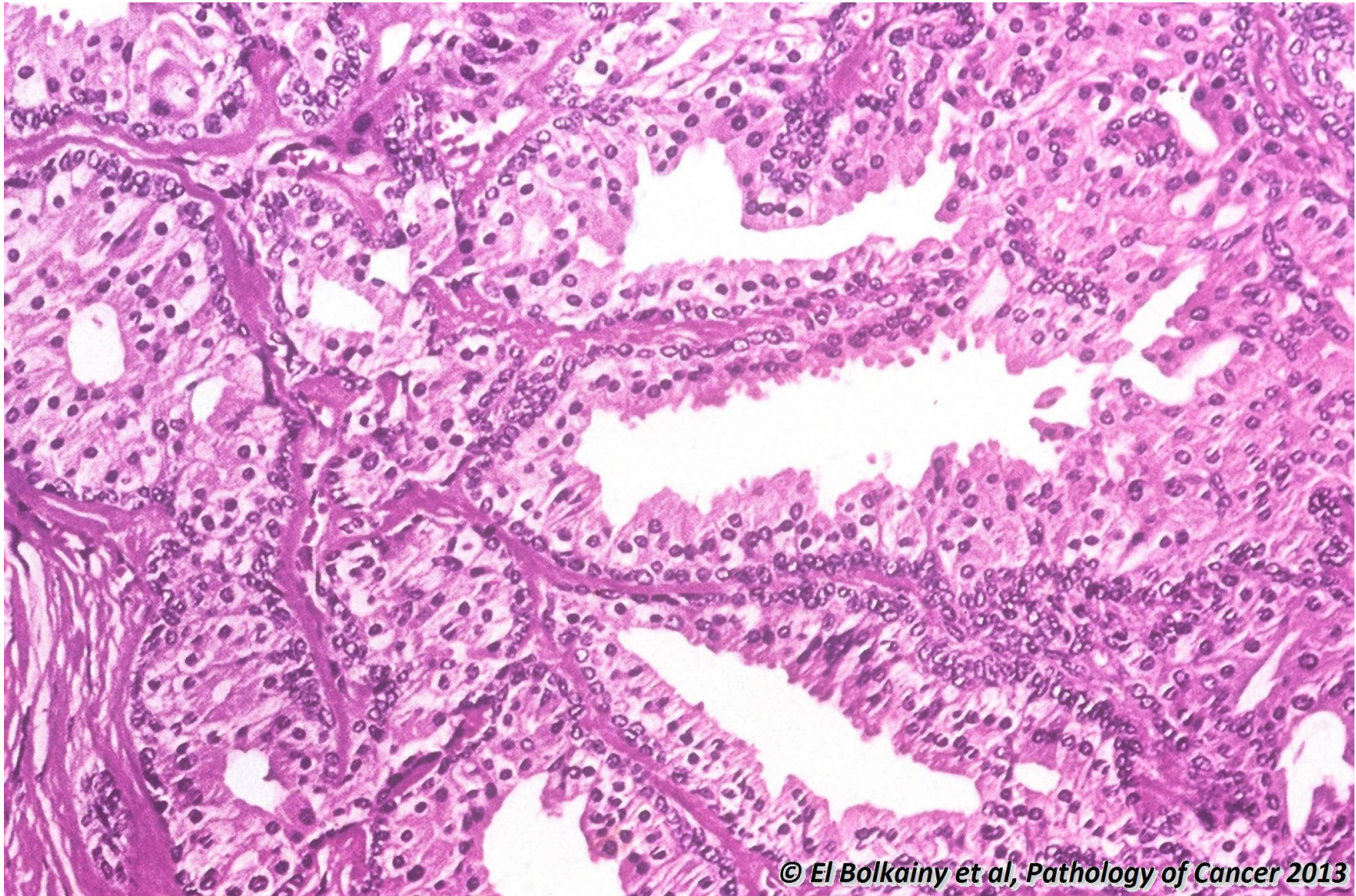
24.18 Pseudolymphoma of orbit, histology.



**Picture 24-18** Pseudolymphoma of orbit, histology. **A** Reactive lymphoid tissue. **B** Inflammatory myofibroblastic tumor. In both lesions, the cellular infiltrate is polymorphus including lymphocytes, plasma cells and histiocytes. Immunostains for lymphocytes is biphenotypic, reactive to both CD 20 and CD 3 indicating a polyclonal reaction of B and T lymphocytes.



24.19 Ceruminous adenoma of external auditory canal, histology.

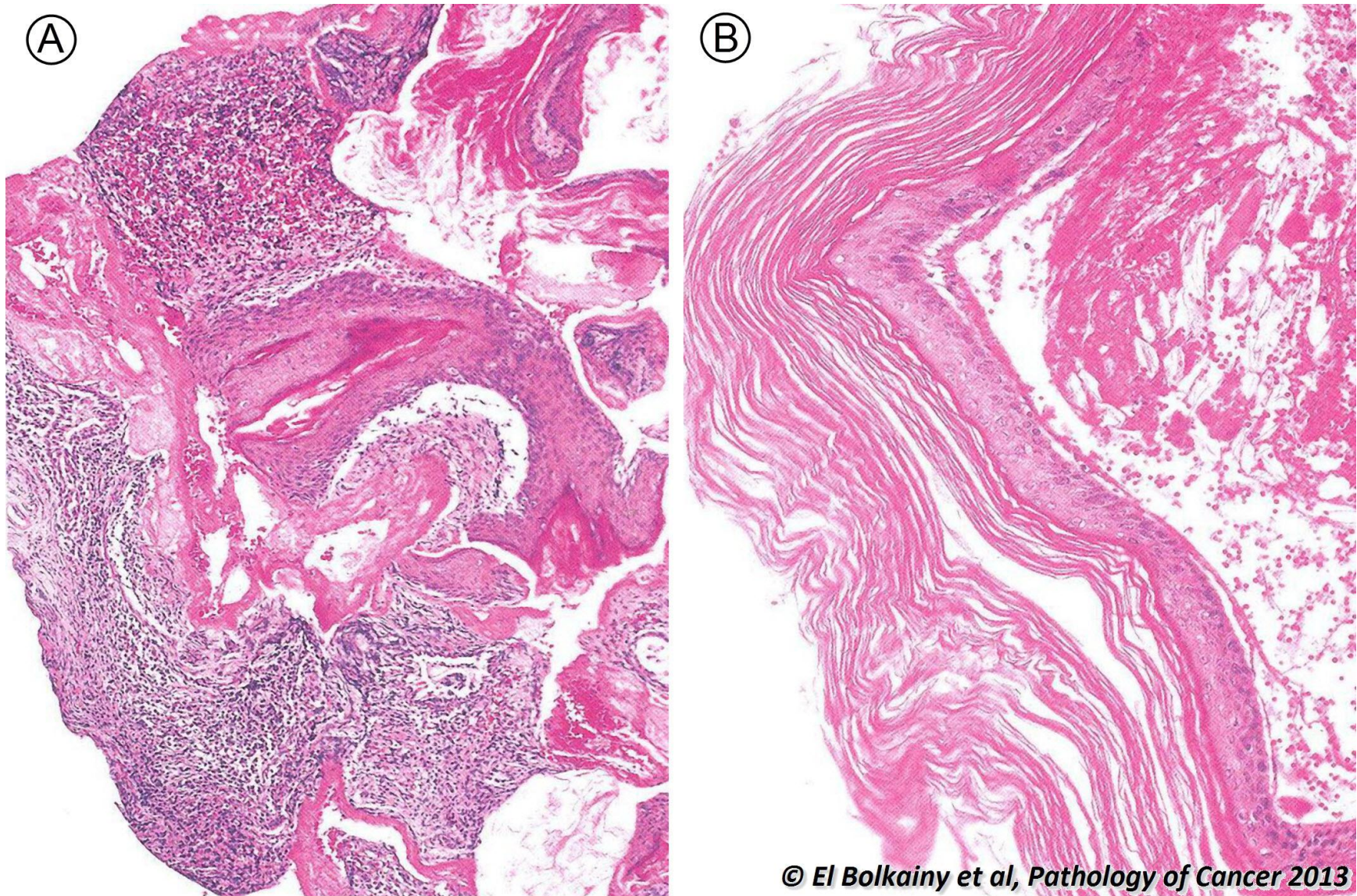


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**Picture 24-19** Ceruminous adenoma of external auditory canal, histology. This tumor arises from apocrine sweat glands. Note the double-cell layer of neoplastic glands (epithelial and myoepithelium) indicating their benign nature.



24.20 Cholesteatoma of middle ear, histology.



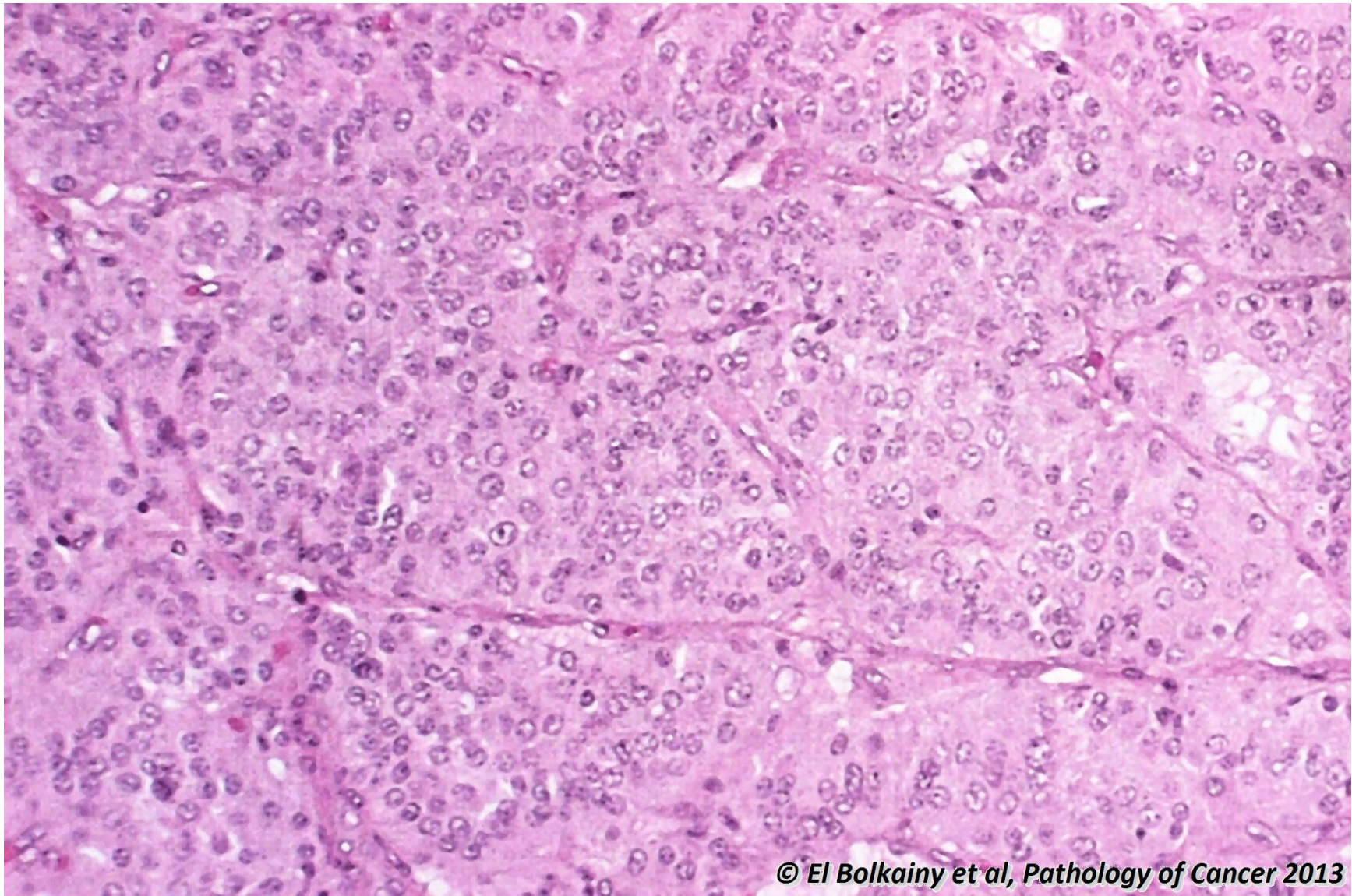
**Picture 24-20**

**Cholesteatoma of middle ear, histology.** A and B The normal stratified columnar epithelium is changed to squamous type. The exfoliated keratin will accumulate and cause damage to vital structures in ear or brain, as a result of pressure effect or inflammatory complications.

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24.21 Upper jugular paraganglioma, (glomus jugulare), histology.

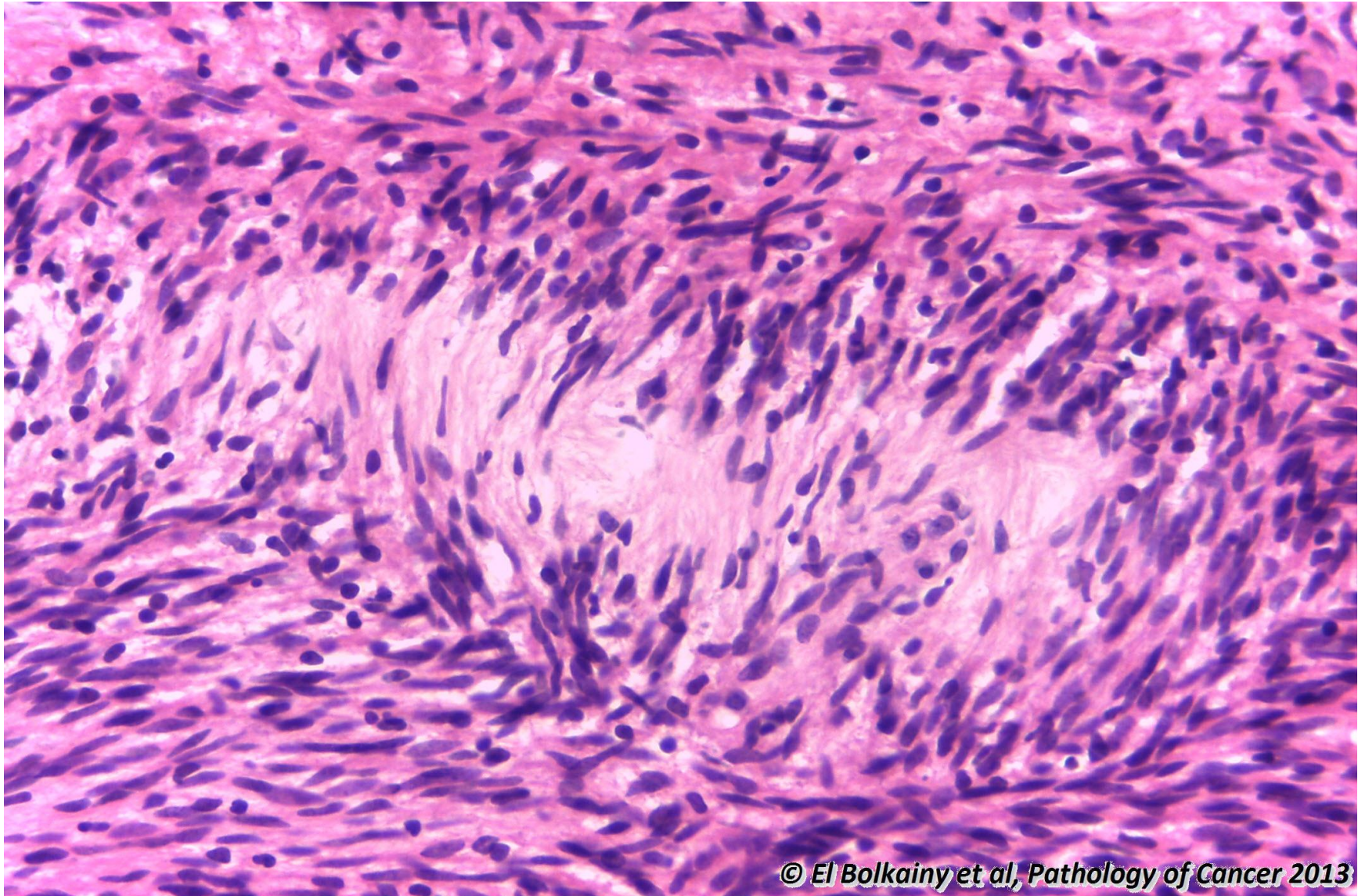


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**Picture 24-21** Upper jugular paraganglioma, (glomus jugulare), histology. The tumor is benign, but locally destructive. It shows nests of neuroendocrine cells (chromogranin positive) in a fibrovascular stroma (S-100 positive supporting sustentacular cells).



24.22 Schwannoma (acoustic neuroma), histology.

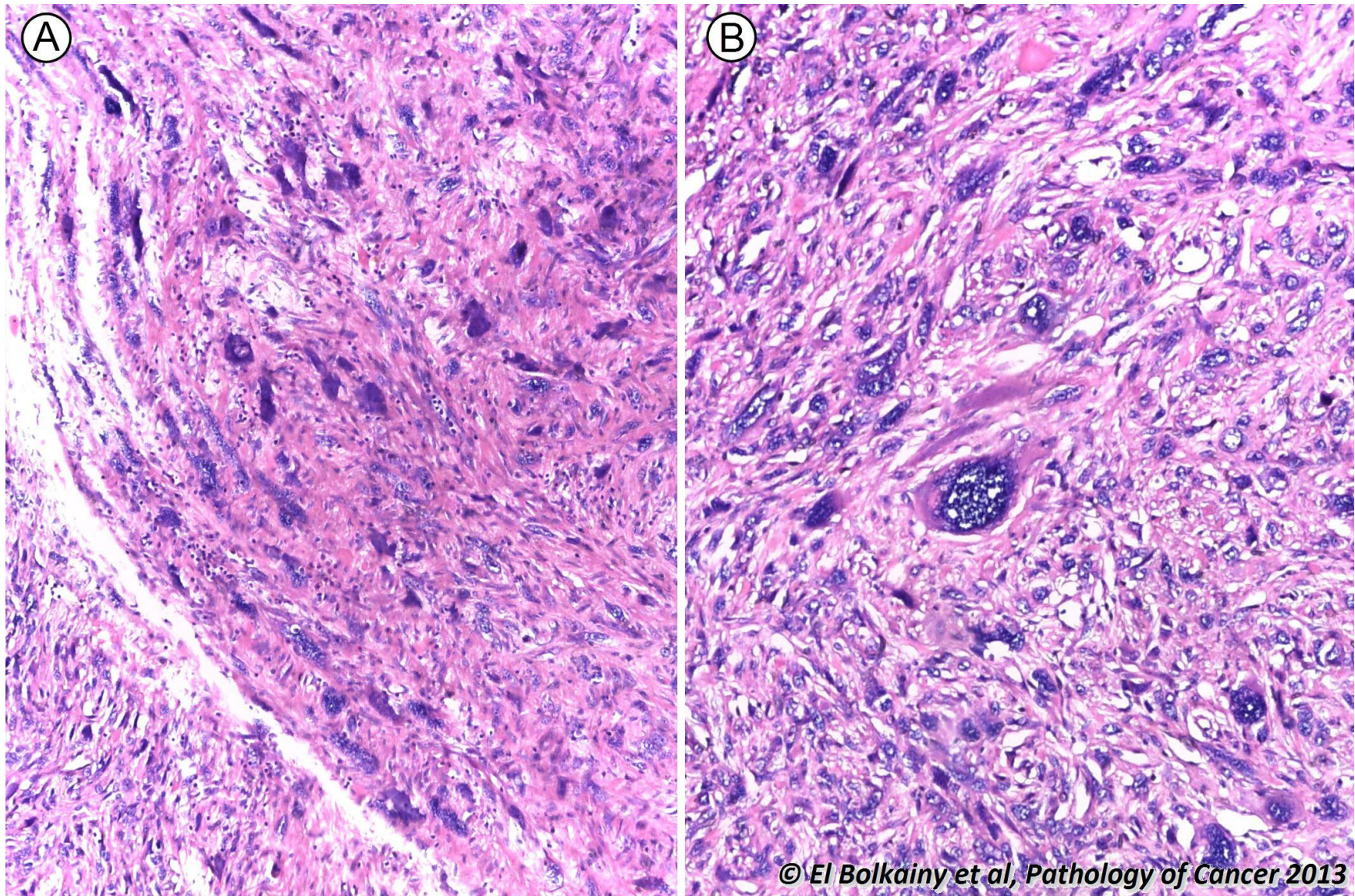


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**Picture 24-22** Schwannoma (acoustic neuroma), histology. Short bundles of neurilemmal cells with palisade pattern of nuclei (Antoni A type, Verocay bodies). Immunostain: S-100 positive.



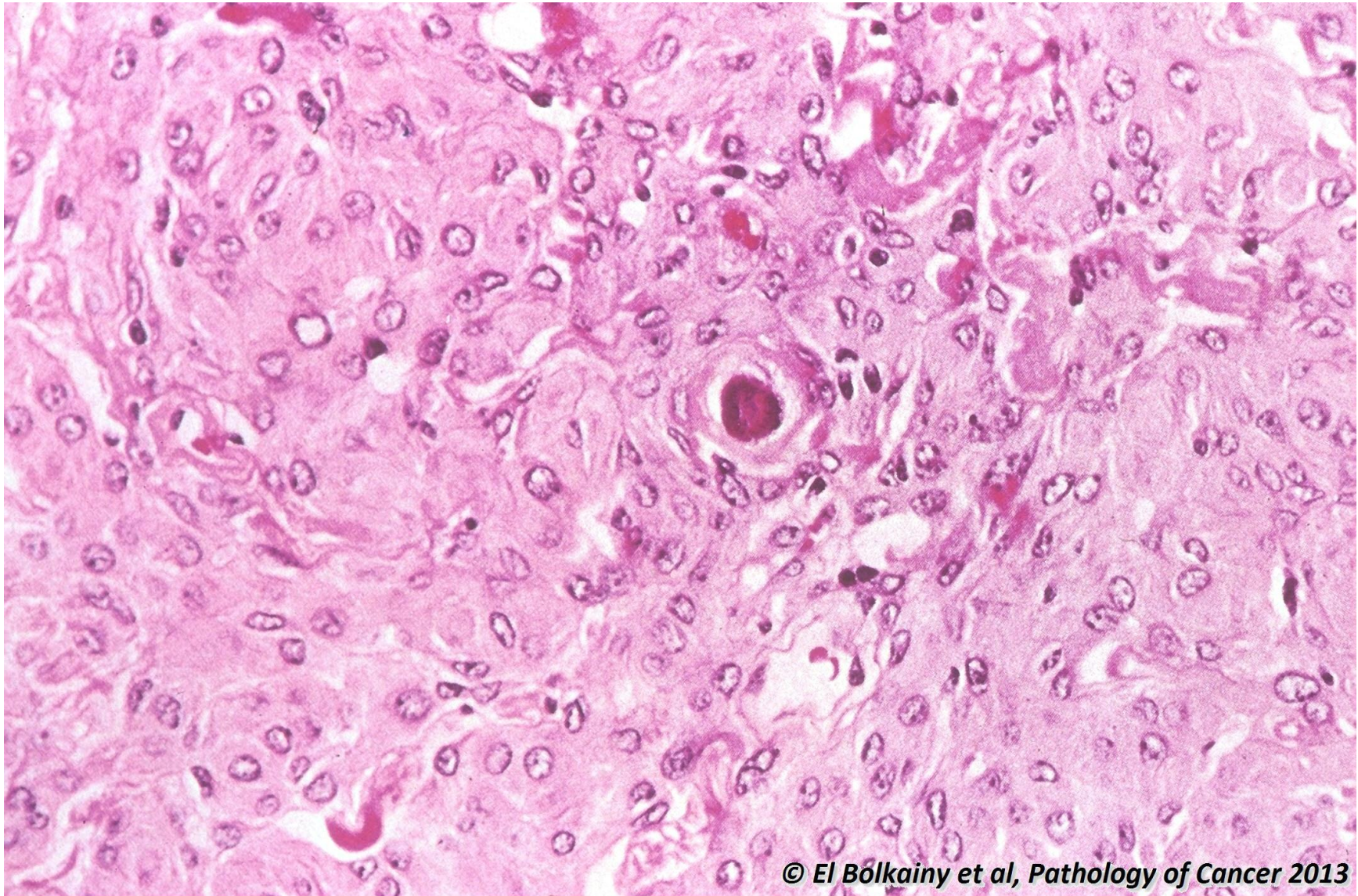
24.23 Schwannoma, symplastic change, histology.



**Picture 24-23** Schwannoma, symplastic change, histology. Giant cells with pleomorphic hyperchromatic nuclei. This hyperploidy is the result of DNA methylation disorder rather than a degenerative process. The lack of mitotic activity is against malignancy. **A** Low power. **B** High power



24.24 Meningioma of internal ear, histology.

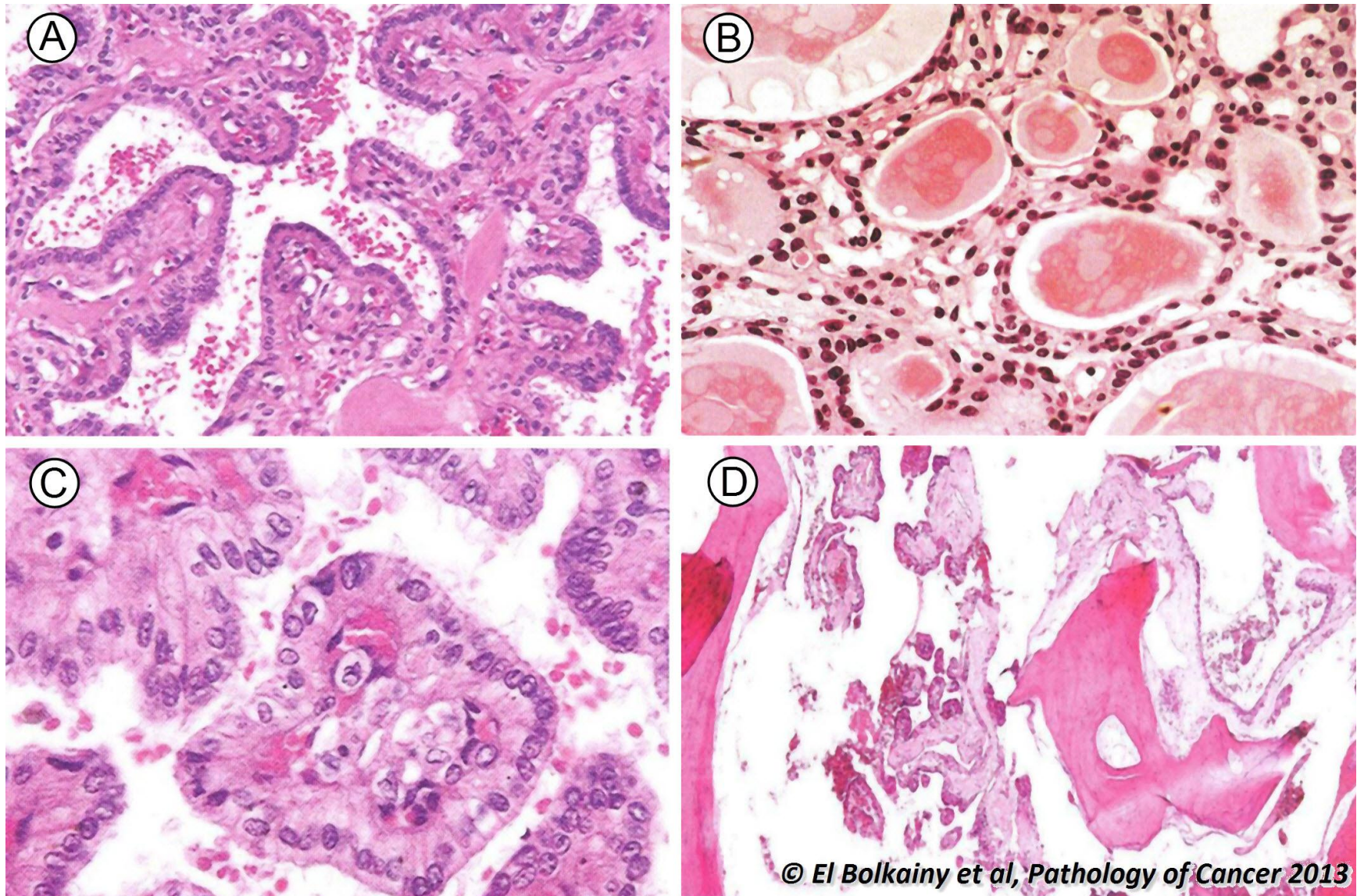


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**Picture 24-24** Meningioma of internal ear, histology. The meningeothelial cells are spindle in shape with characteristic whorly pattern. Microcalcification (psammoma bodies) are not uncommon.



24.25 Endolymphatic sac tumor of internal ear, histology.



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**Picture 24-25** Endolymphatic sac tumor of internal ear, histology. This commonly benign but locally destructive tumor shows a variety of patterns: **A** Intracystic papillary pattern. **B** Follicular pattern with eosinophilic globules and **C** acinar pattern. **D** Note the bone infiltration.