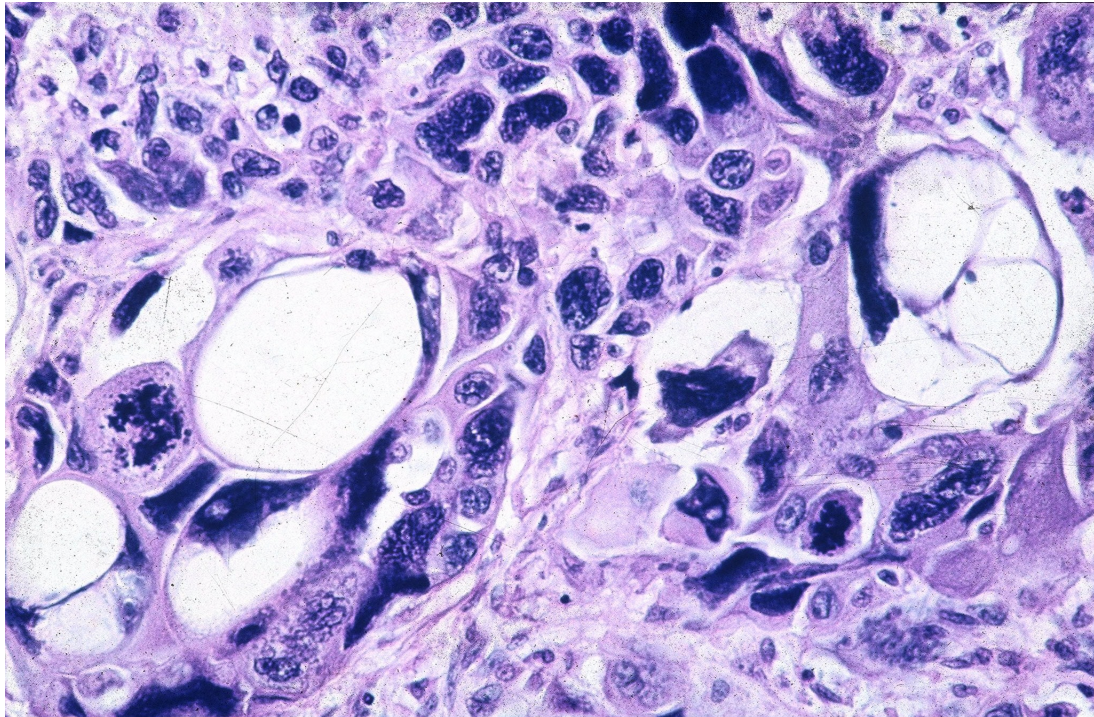


Section

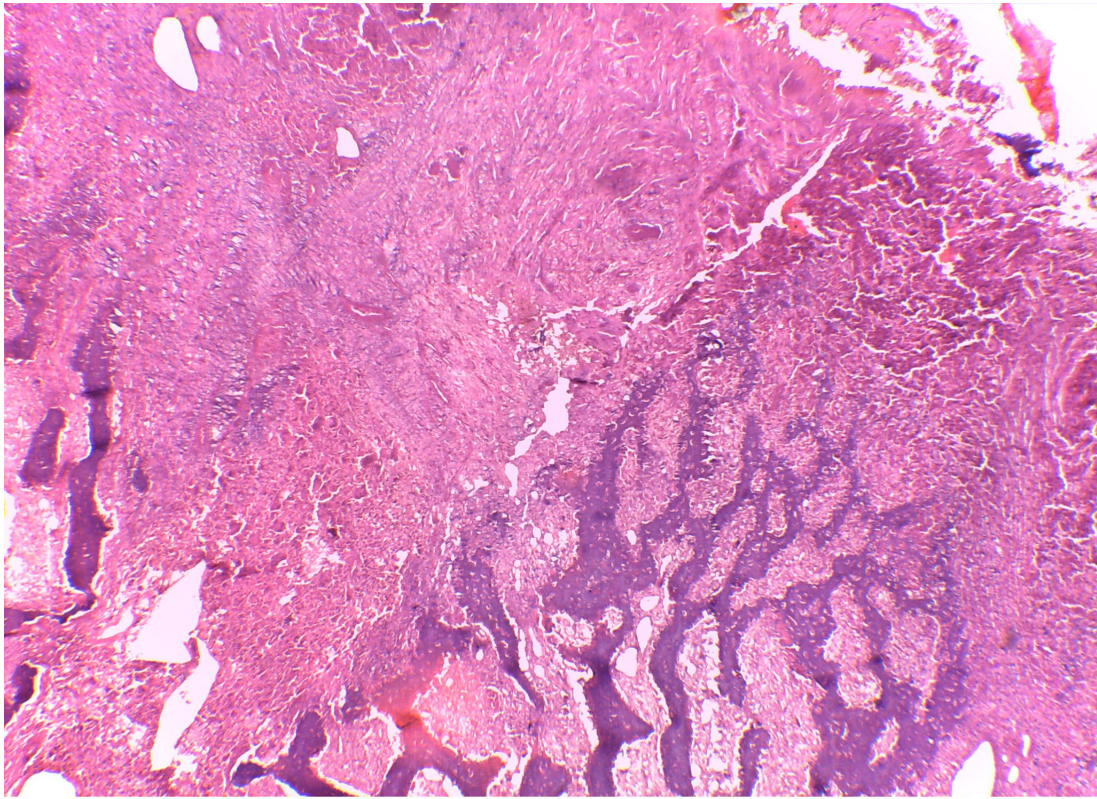
11

Grading of Therapy Response of Cancer

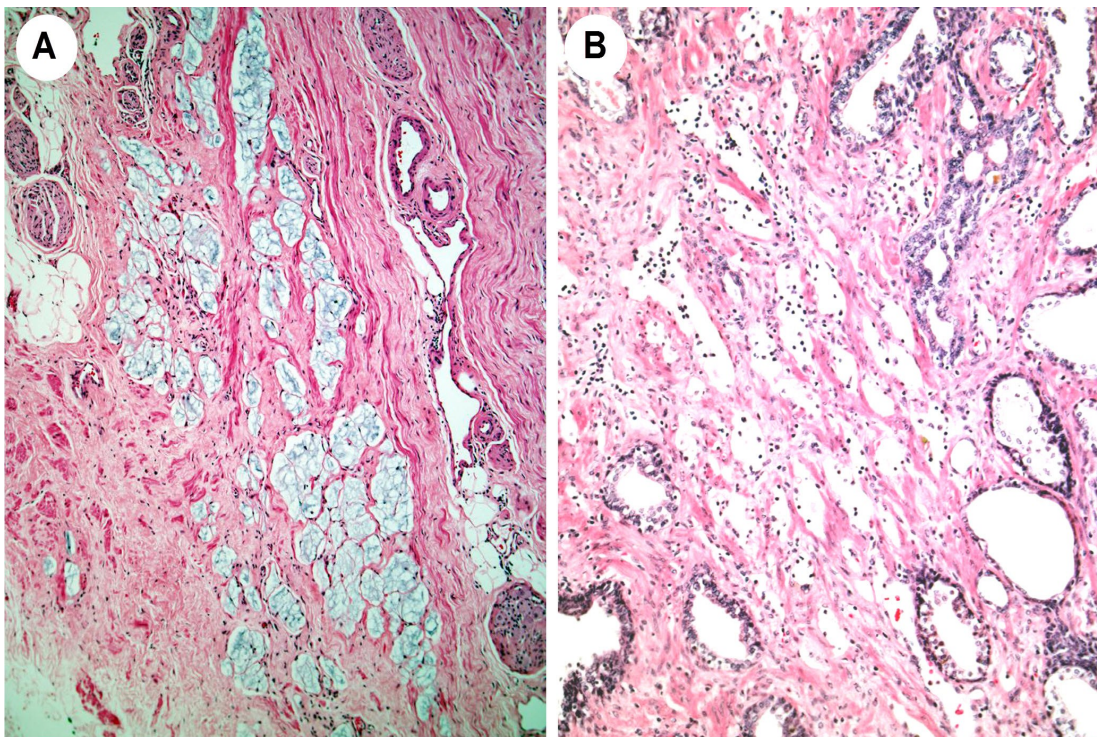


P 15-1. Urothelial carcinoma of bladder after radiotherapy. Degeneration in the form of cytomegaly as well as marked cytoplasmic and nuclear vacuolation. The small cells in upper left field represent apoptosis.

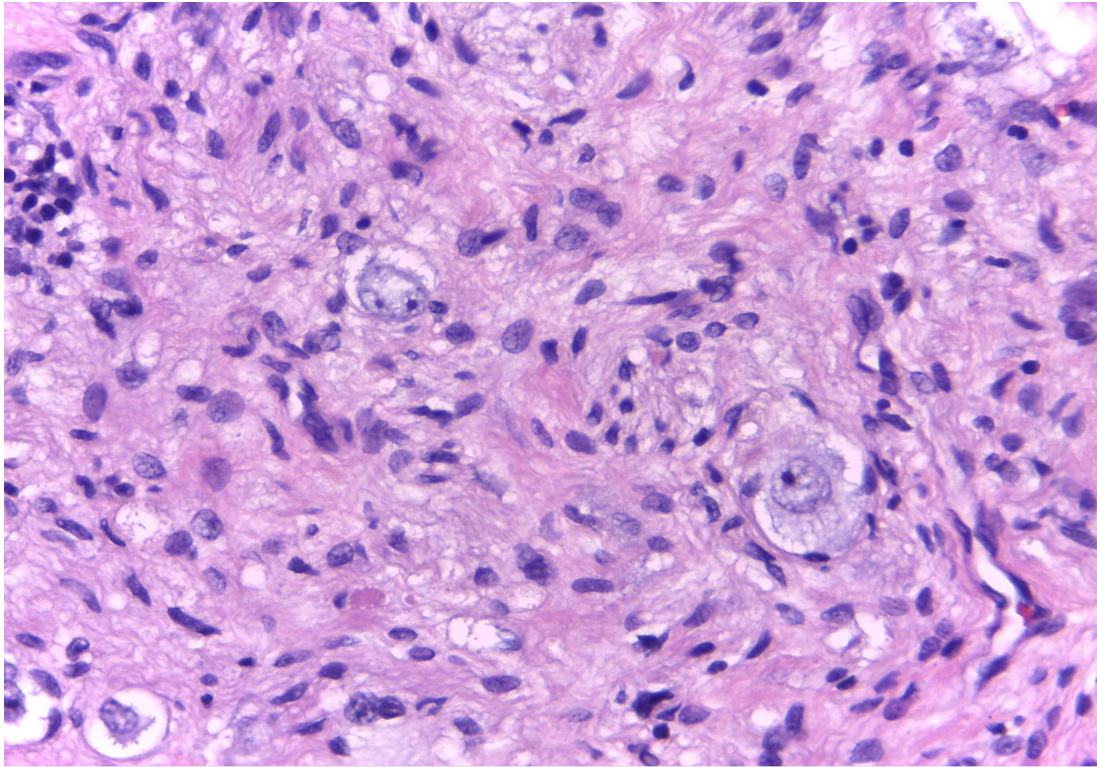




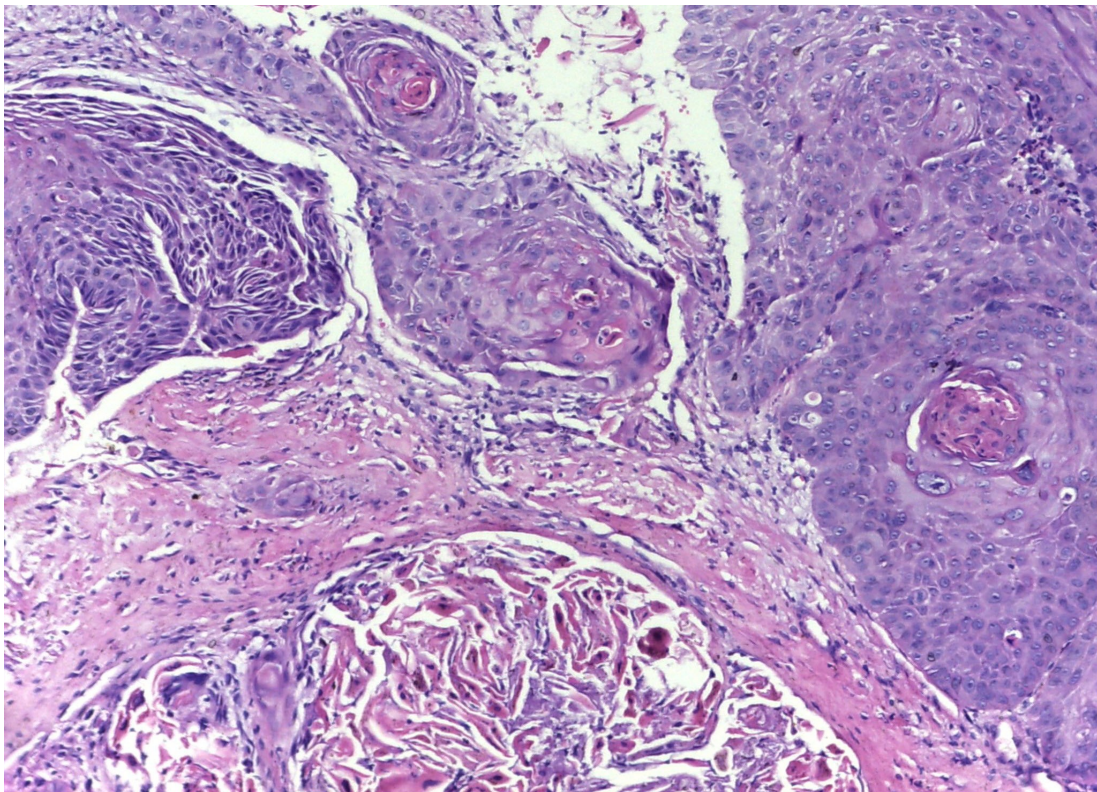
P 15-2. Osteosarcoma, post chemotherapy. The upper eosinophilic structureless area represents necrotic tumor tissue. Quantitation of necrosis is of prognostic value.



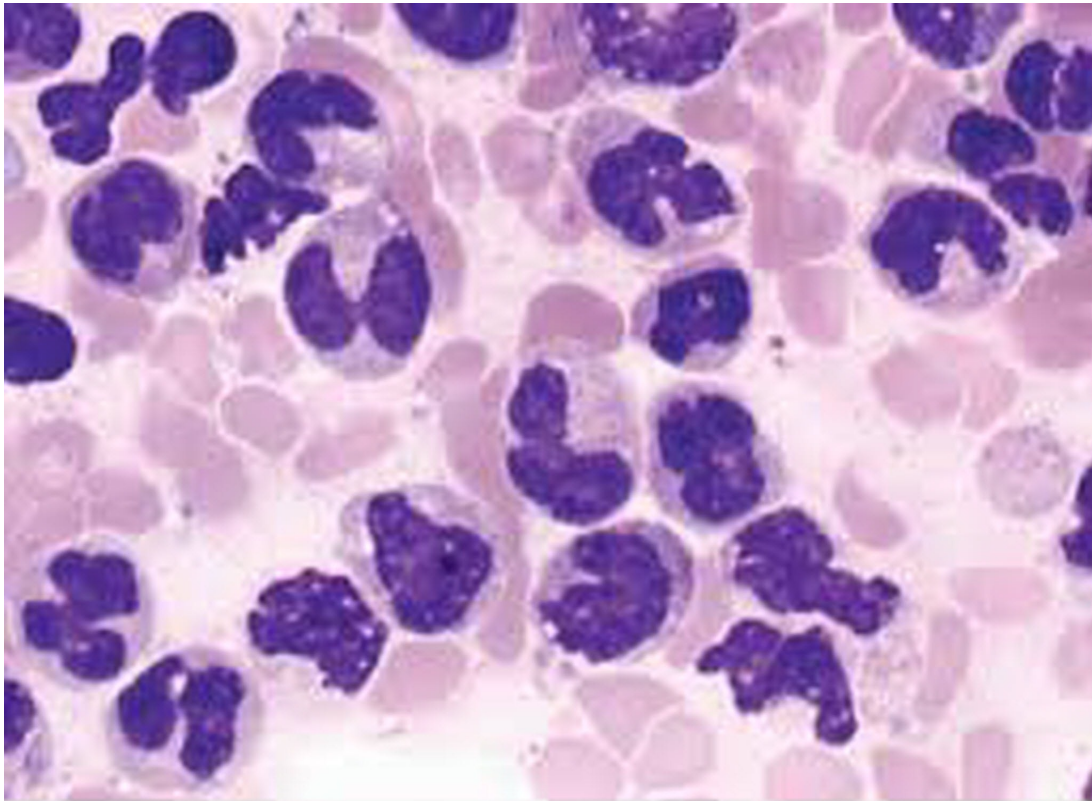
P 15-3. Prostatic carcinoma, acinar type, atrophic changes after androgen deprivation therapy. **A** Early change showing reduction of cytoplasm but acini are still apparent. **B** Late atrophic change showing bare nuclei after cytoplasmic loss (center of field) "courtesy of PathologyOutlines.com".



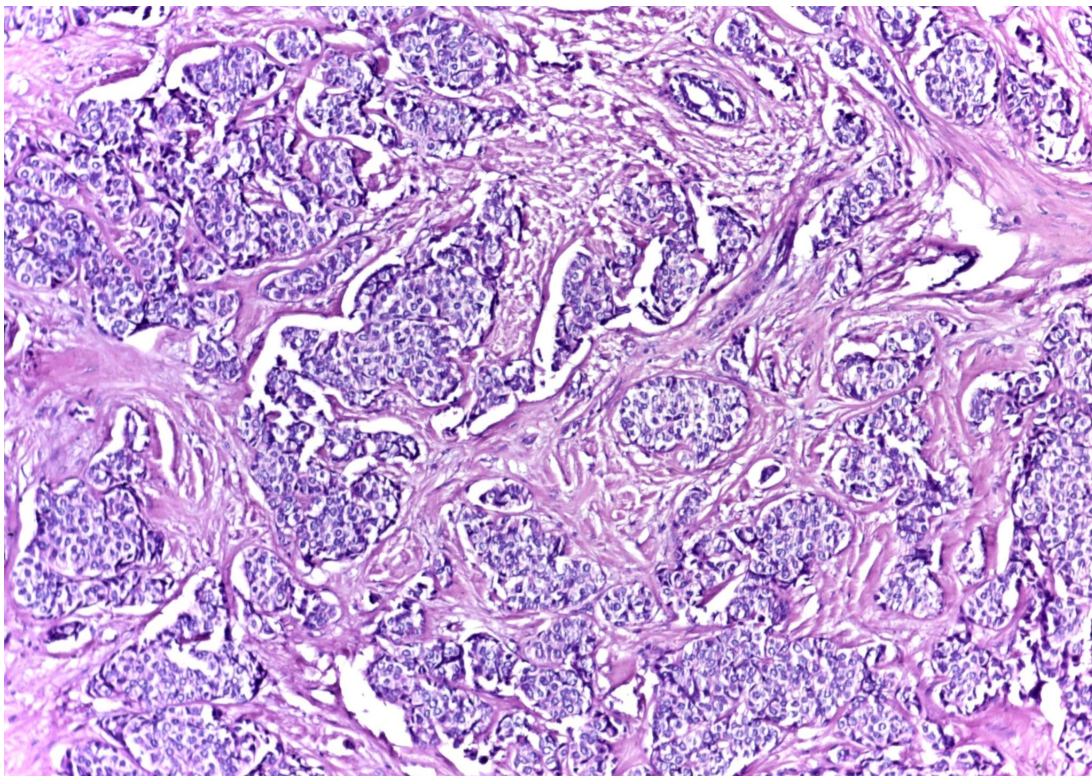
P 15-4. Neuroblastoma differentiation after chemotherapy. Ganglion cells are apparent characterized by abundant cytoplasm and prominent nucleoli. Note the complete depletion of immature neuroblasts and preservation of stromal cells .



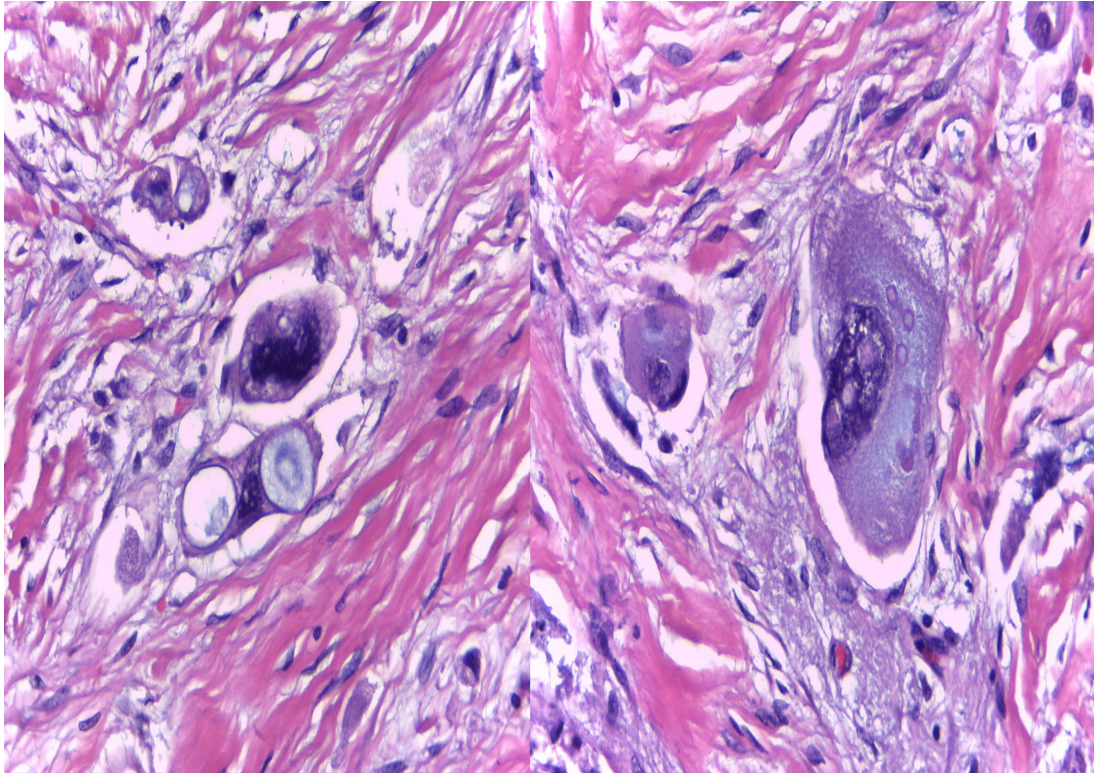
P 15-5. Downgrading of squamous cell carcinoma of vocal cord, post radiotherapy. A grade 2 tumor (upper feild) changes to grade 1 (lower feild).



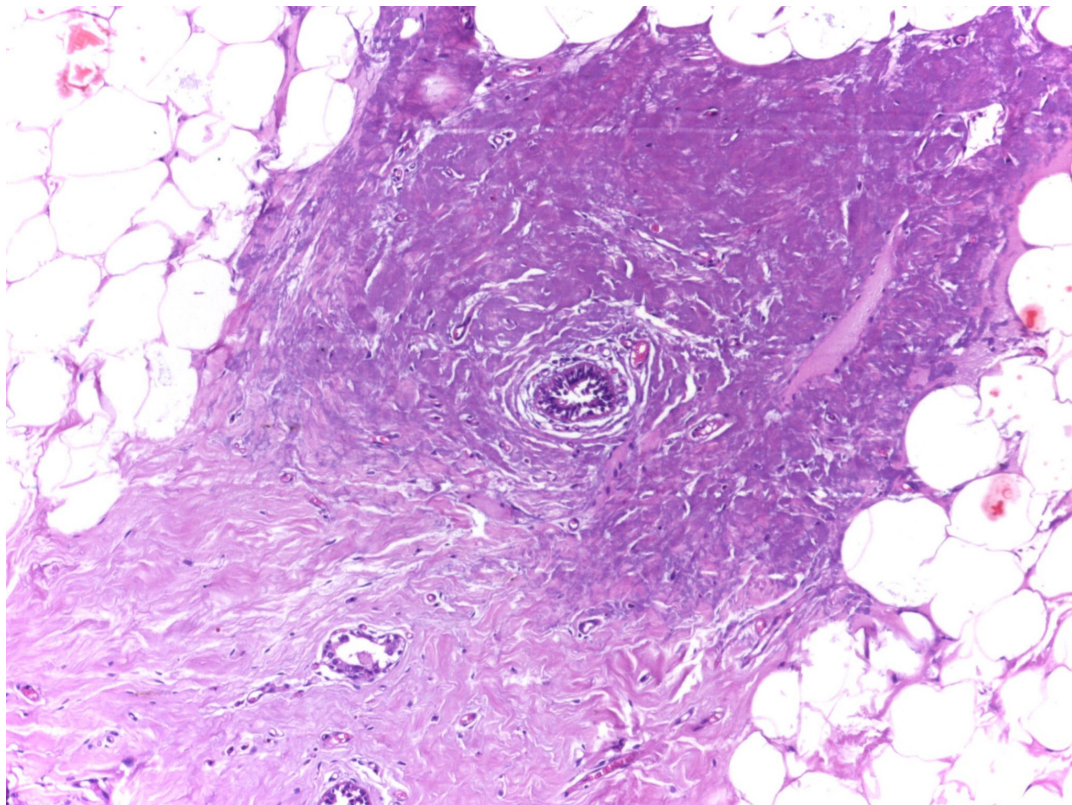
P 15-6. Differentiation of acute myeloid leukemia cells 30 days after retinoid therapy. Note the increase in number of mature polymorph nuclear leukocytes in the smear.



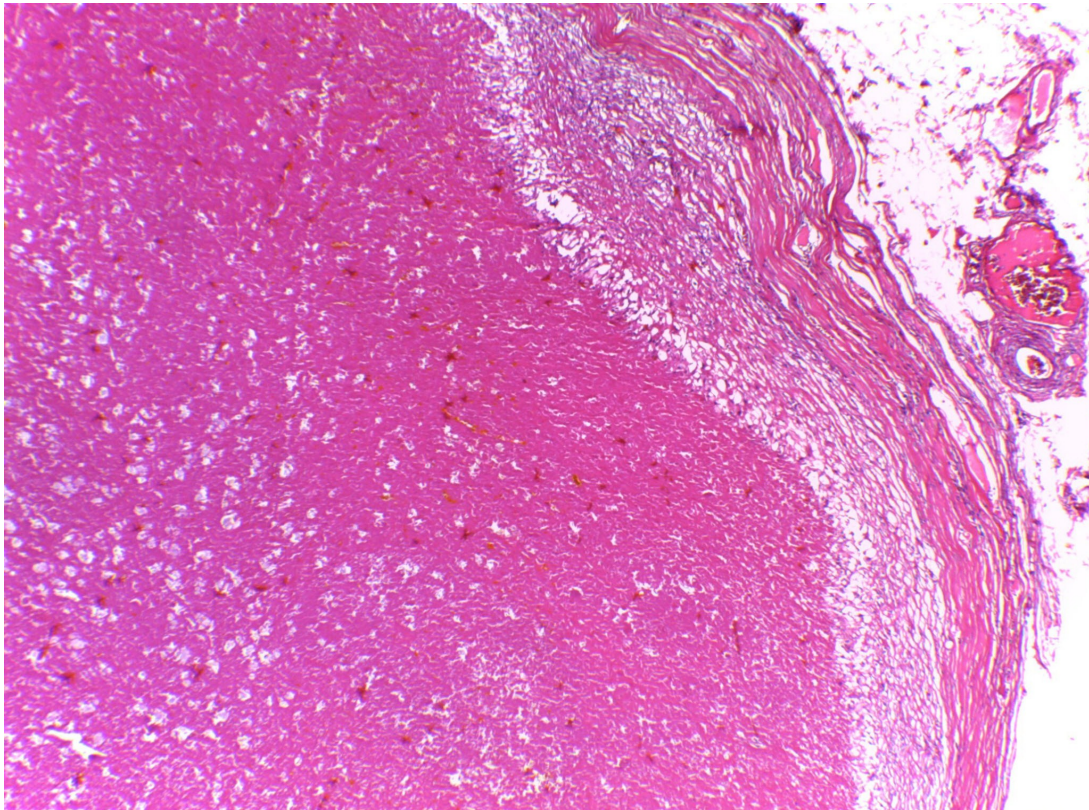
P 15-7. Breast cancer, post neoadjuvant chemotherapy effect grade 0, pathologic no response (pNR). No evidence of degeneration or necrosis and the histology is the same as the pretherapy biopsy. This represents an in vivo testing of drug resistance.



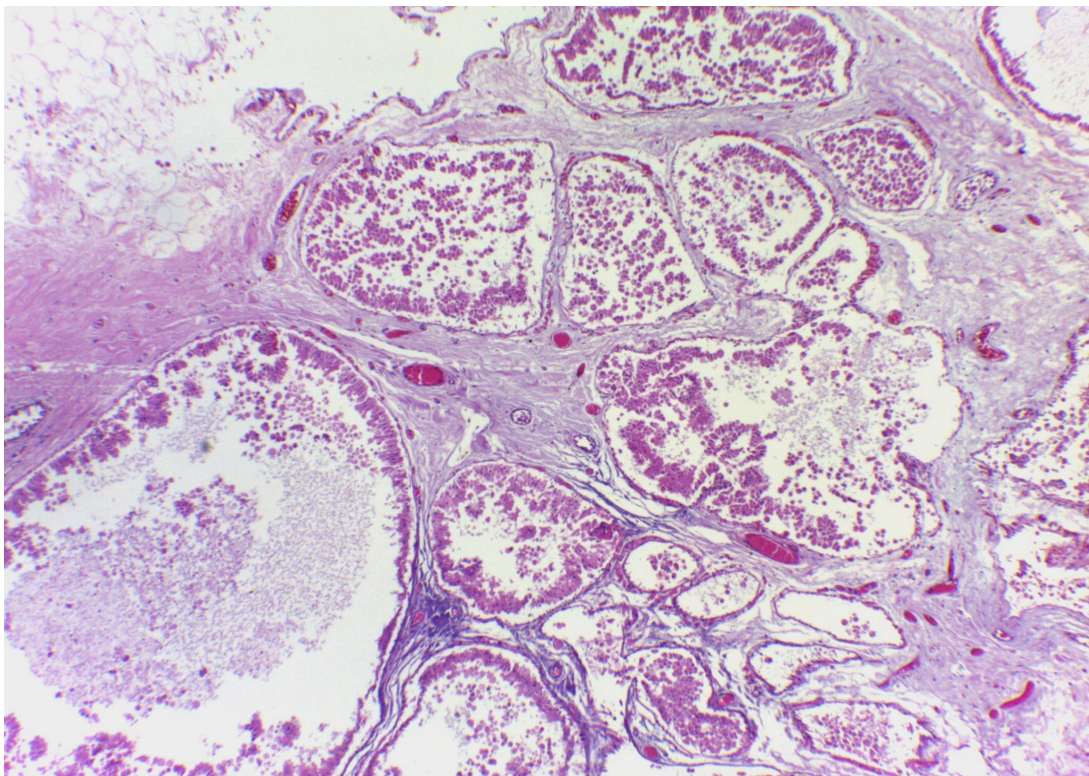
P 15-8. Breast cancer, postneoadjuvant chemotherapy grade 1, moderate response. This grade is regarded as a partial response (pPR) by the 3-tier AJCC recent classification. Note the cytomegaly and vacuolation of tumor cells. Residual tumor >30% of original size.



P 15-9. Breast cancer, post neoadjuvant chemotherapy effect grade 3. Complete response (cPR). The tumor bed shows stroma and normal ducts lacking any tumor cells.



P 15-10. Breast carcinoma, metastatic to lymph node, post neoadjuvant chemotherapy effect grade 3. Complete response with massive necrosis (cPR) .



P 15-11. Breast carcinoma in situ post neoadjuvant chemotherapy. Isolated DCIS, as shown here, does not change a complete response, but, if the DCIS is associated with an invasive component, it is considered as a residual disease, hence change the grade to pPR.