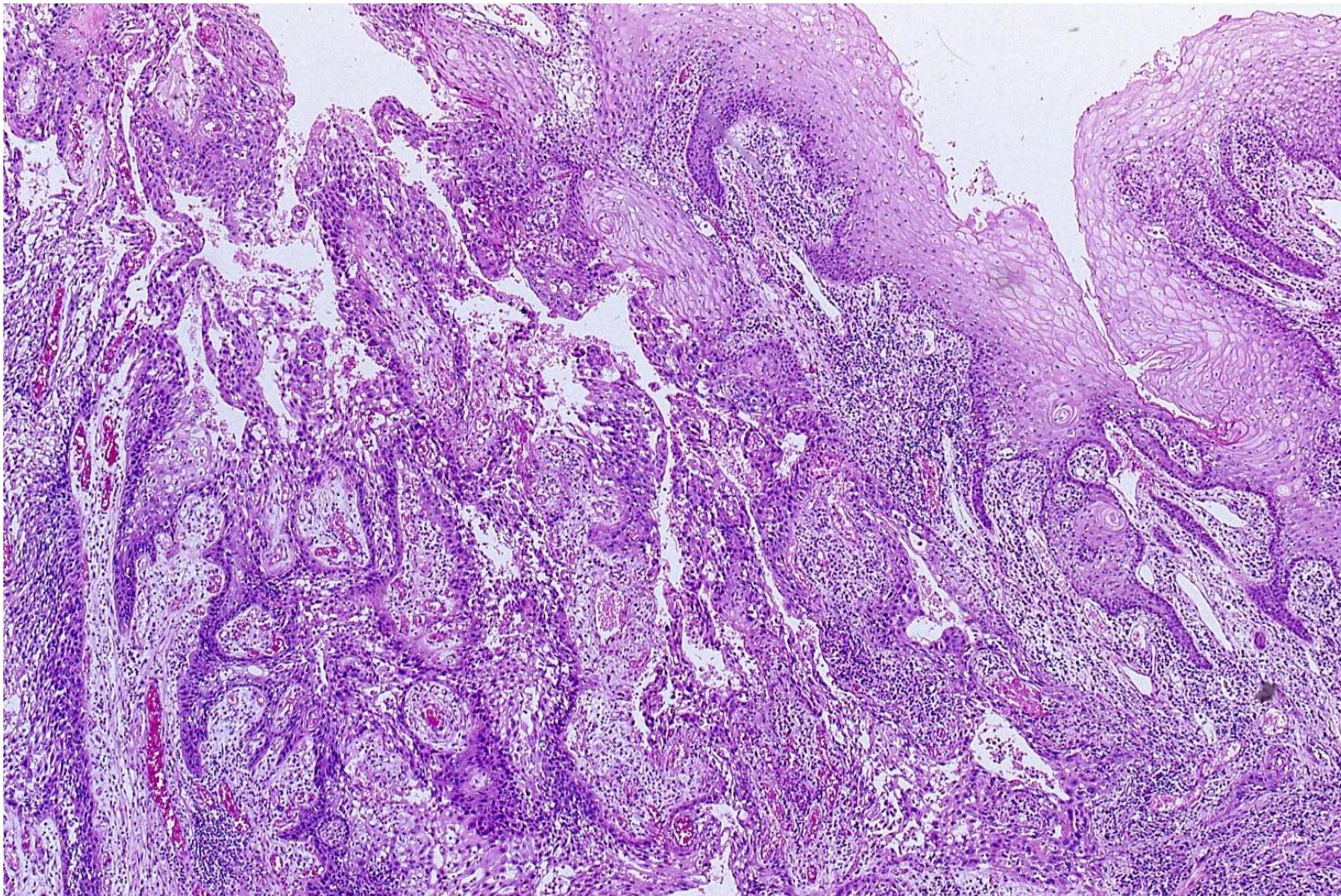


G-CSF-producing squamous cell carcinoma of the pharynx

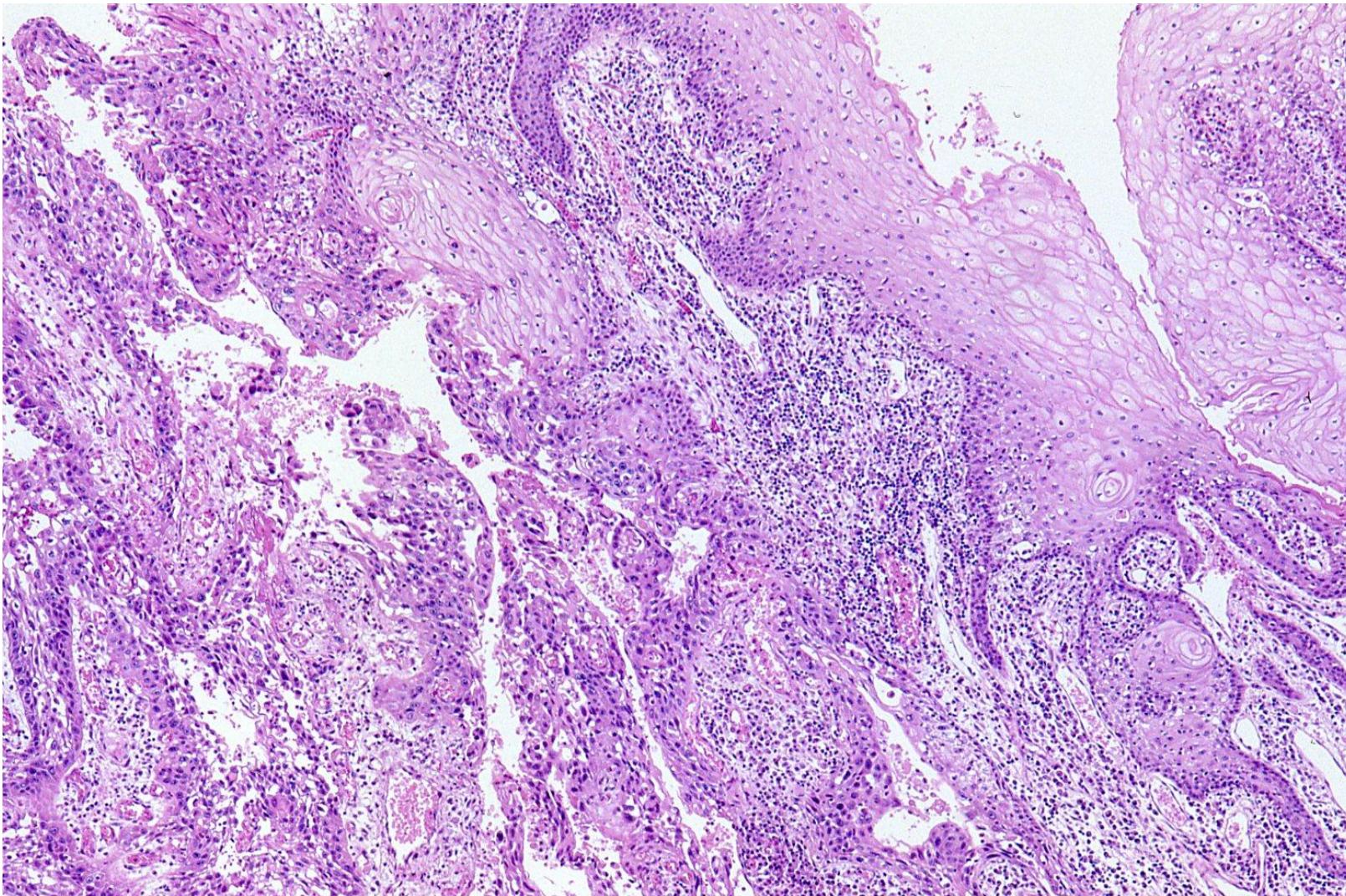
Granulocyte-colony stimulating factor (G-CSF)-producing carcinoma has been reported in a variety of organs. Peripheral blood neutrophilia is observed. Many are reported to be anaplastic carcinoma, and infrequently squamous cell carcinoma produces G-CSF. The prognosis of the patients with G-CSF-producing carcinoma is very poor.

Ref.-1: Yasui H, et al. Granulocyte colony-stimulating factor-producing carcinoma of unknown primary site. Case Rep Oncol 2014; 7(3): 780-788. doi: 10.1159/000369335

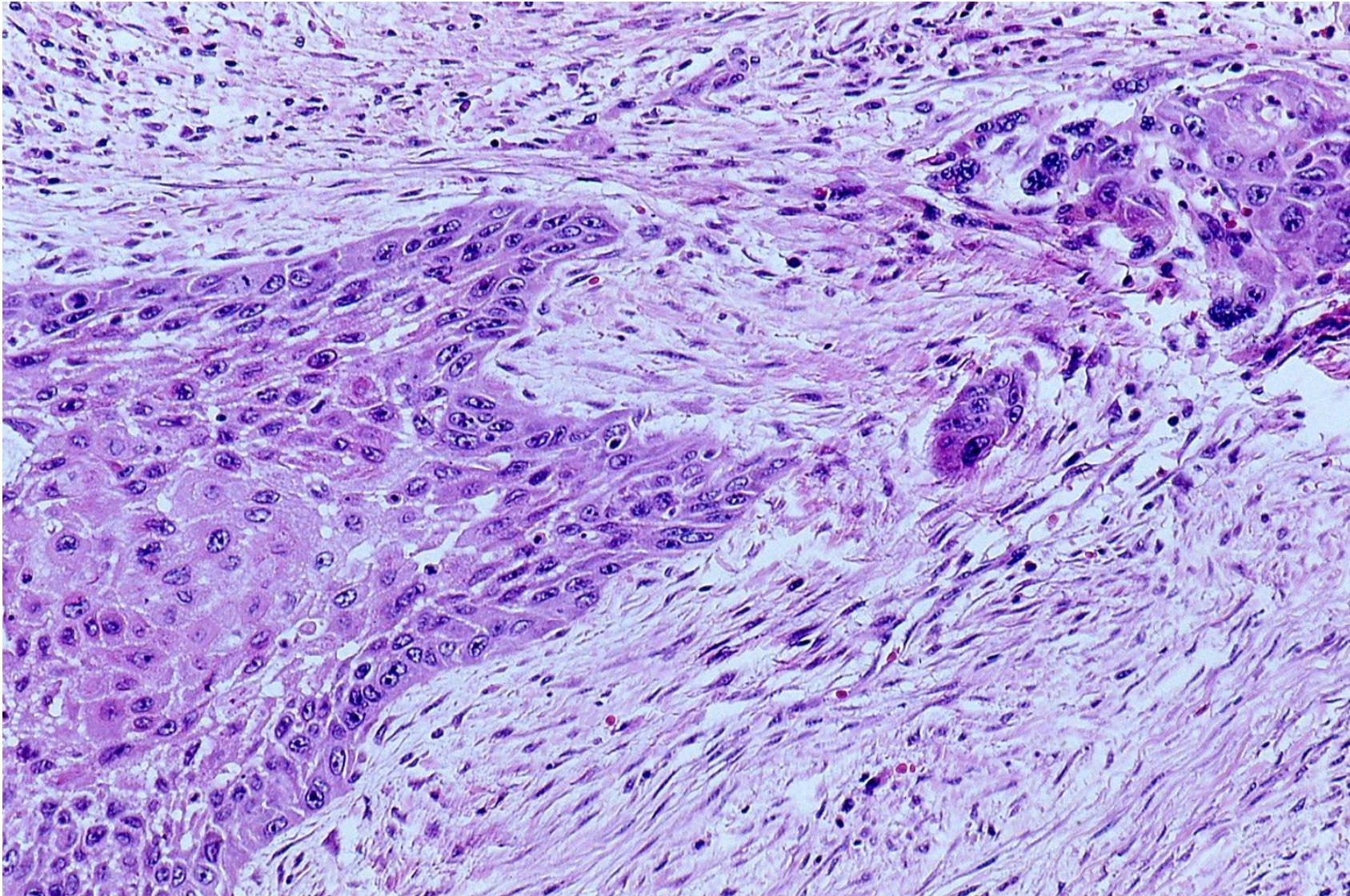
Ref.-2 : Samejima H, et al. G-CSF-producing left lung squamous cell carcinoma positive for ROS1 rearrangements completely resected after neoadjuvant radiation chemotherapy: A case report. Respir Med Case Rep 2022; 38: 101697. doi: 10.1016/j.rmc.2022.101697



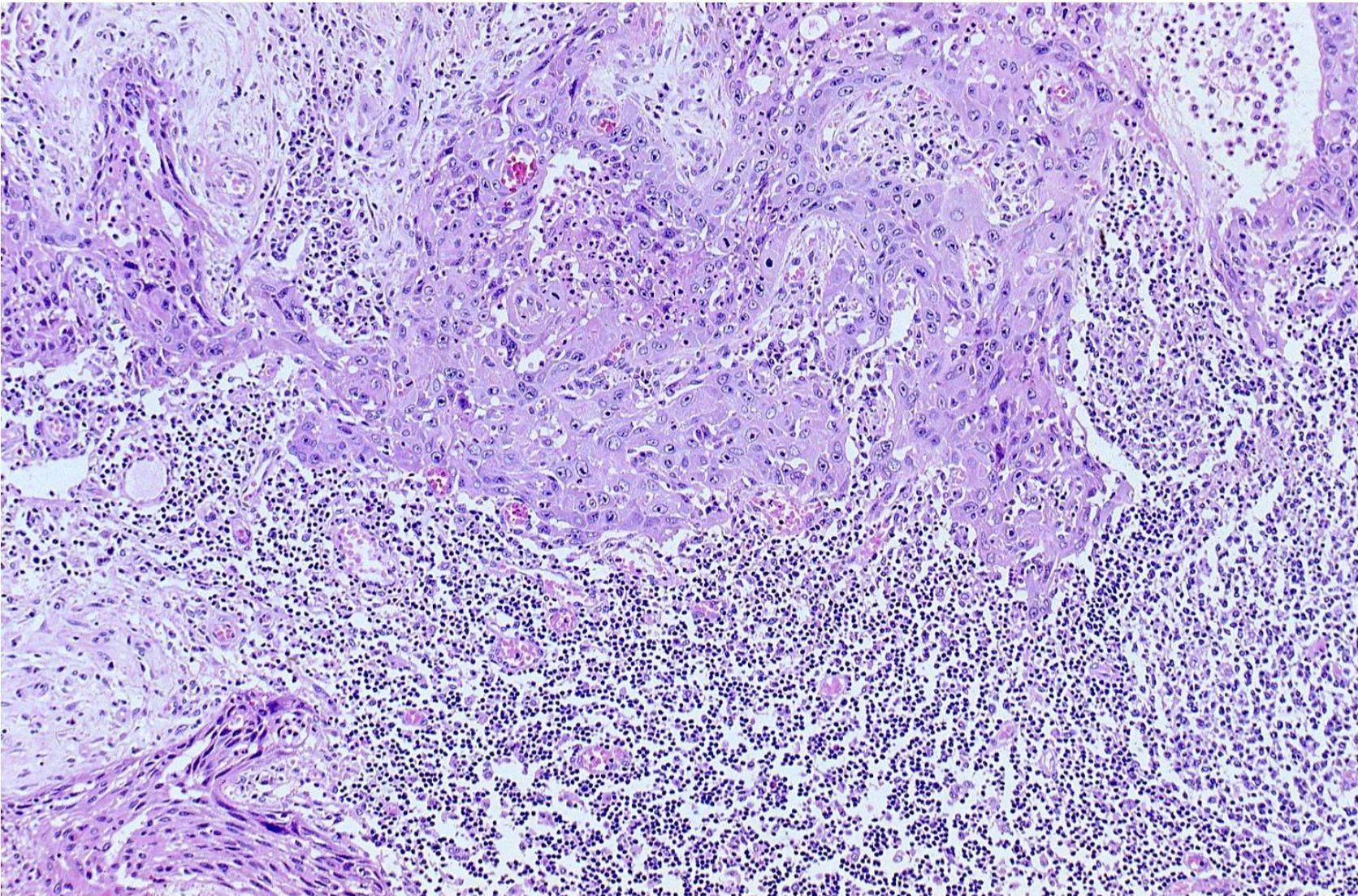
G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. Deeply invasive squamous cell carcinoma with focal keratinization is noted in the surgical specimen (H&E-1).



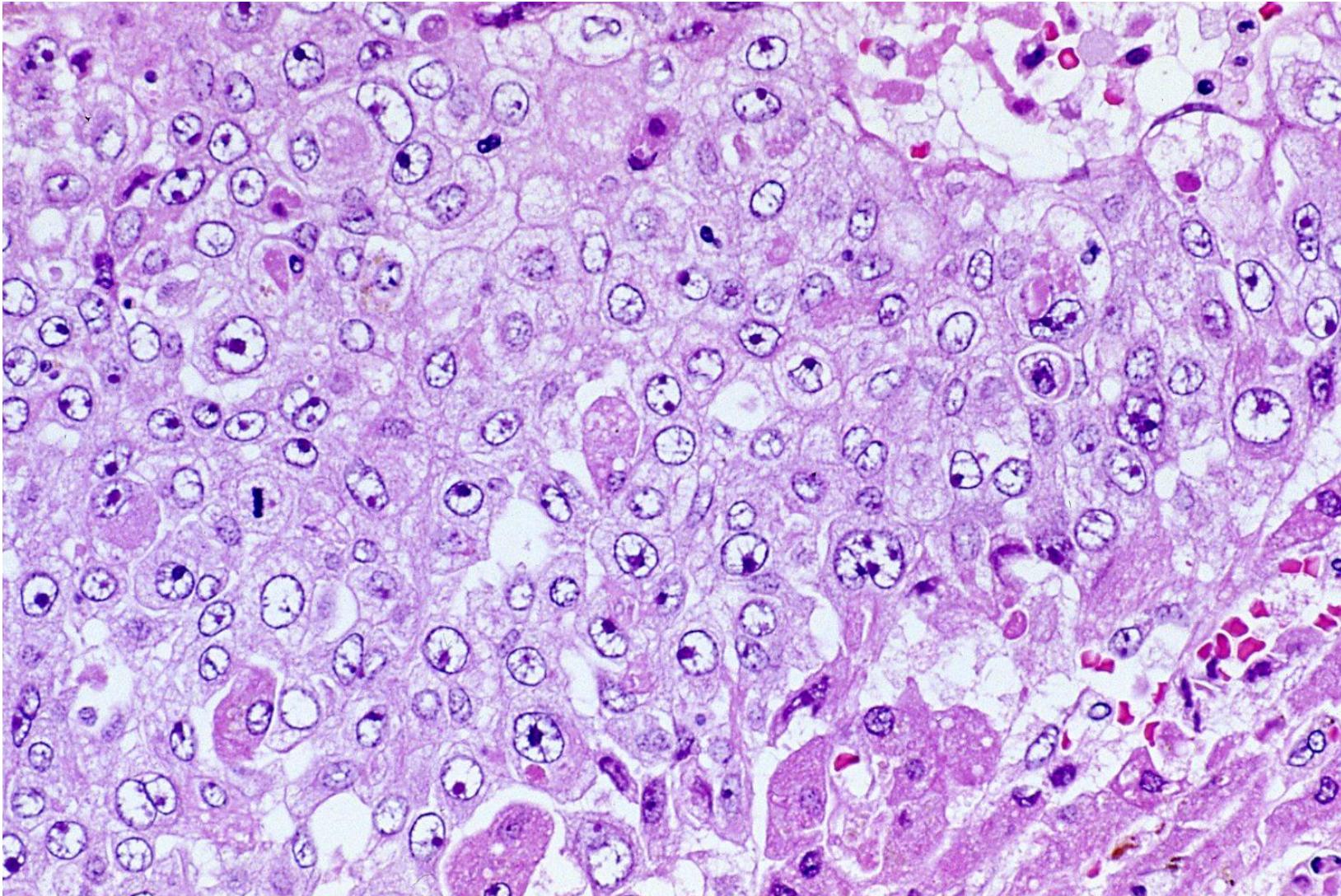
G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. Deeply invasive squamous cell carcinoma with focal keratinization is noted in the surgical specimen (H&E-2).



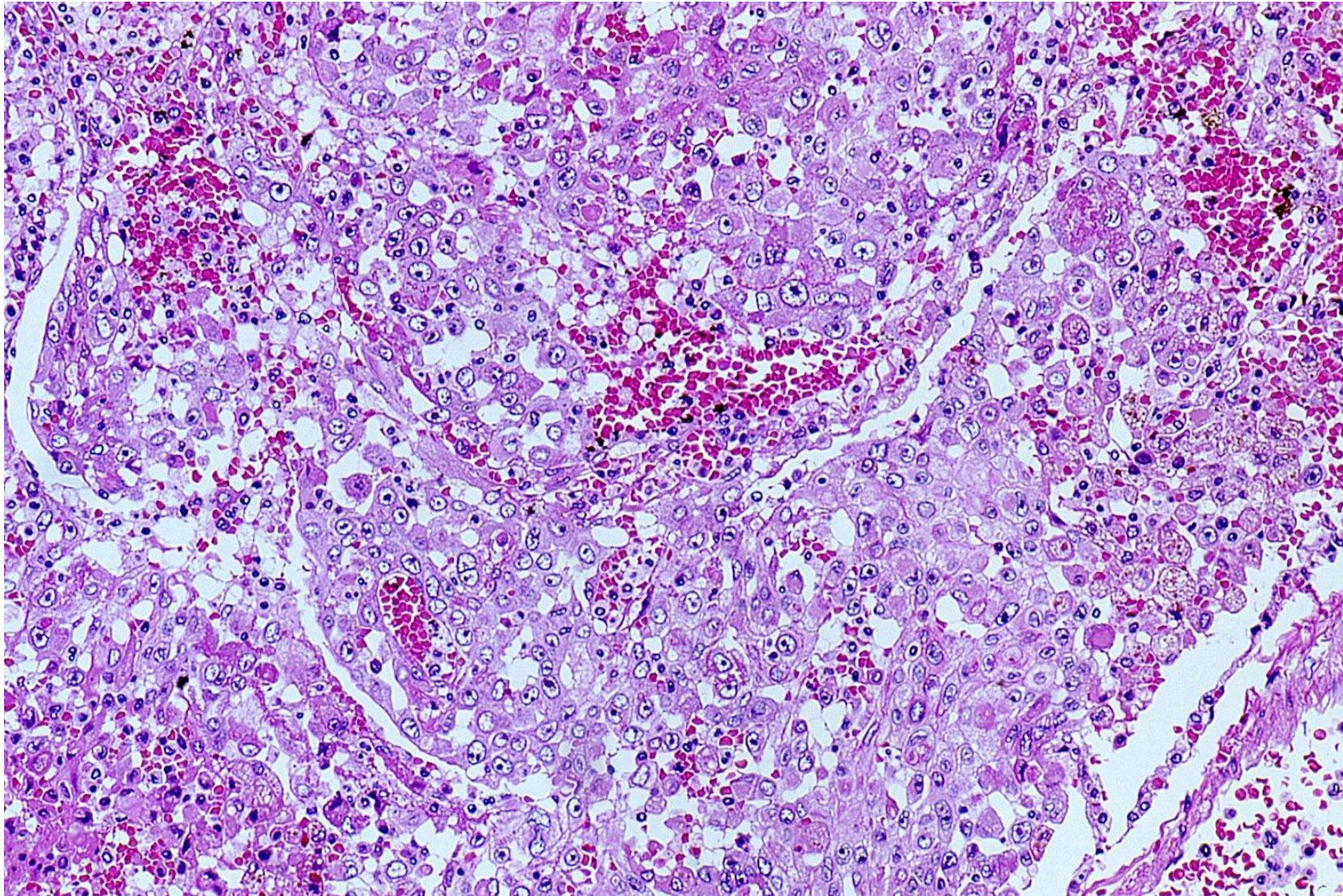
G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. Deeply invasive squamous cell carcinoma with focal keratinization is noted in the surgical specimen (H&E-3).



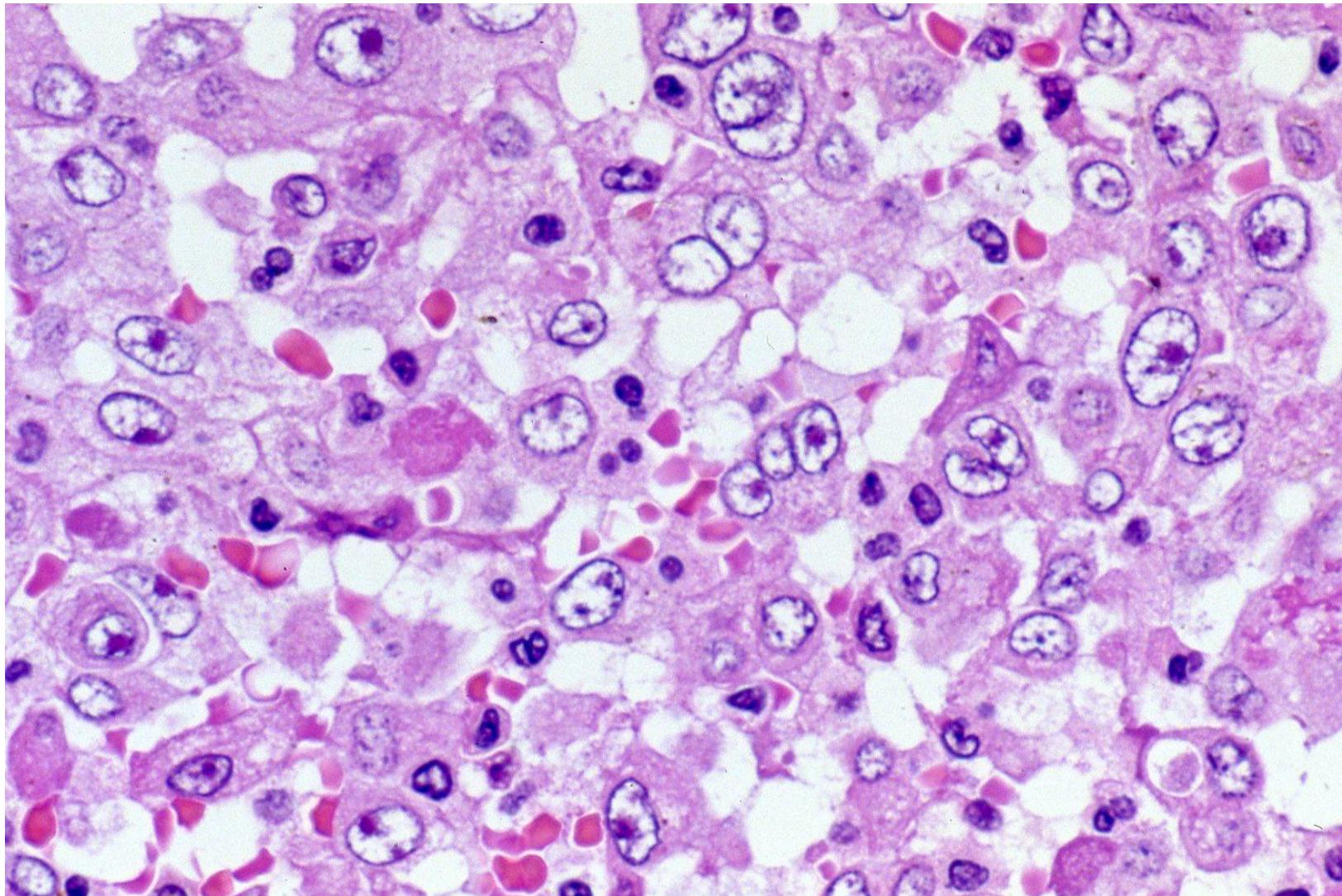
G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. Regional lymph nodal metastasis was positive for squamous cell carcinoma (H&E-4).



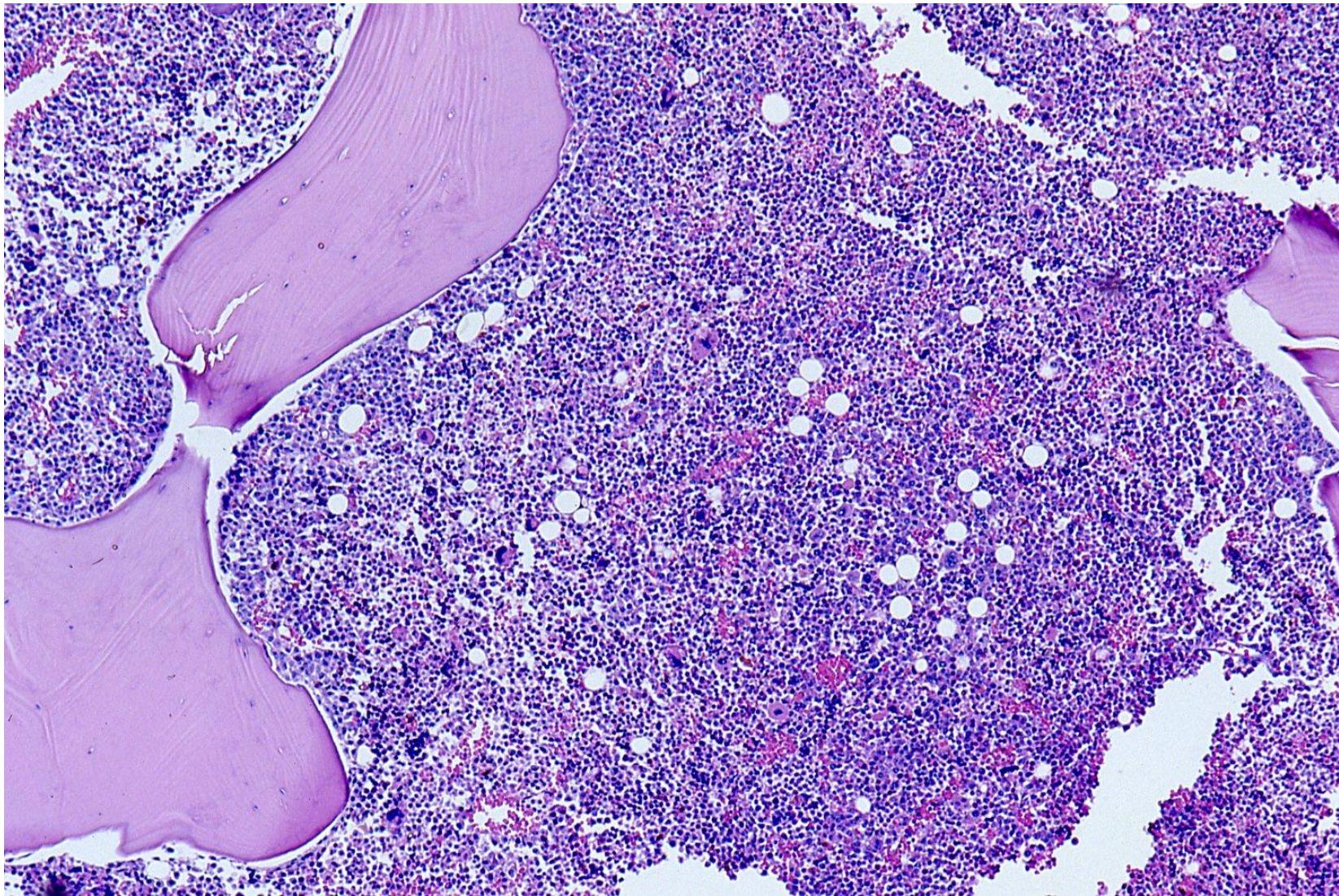
G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. At autopsy performed three months after surgery, liver metastasis by poorly differentiated squamous cell carcinoma was proven (H&E-5).



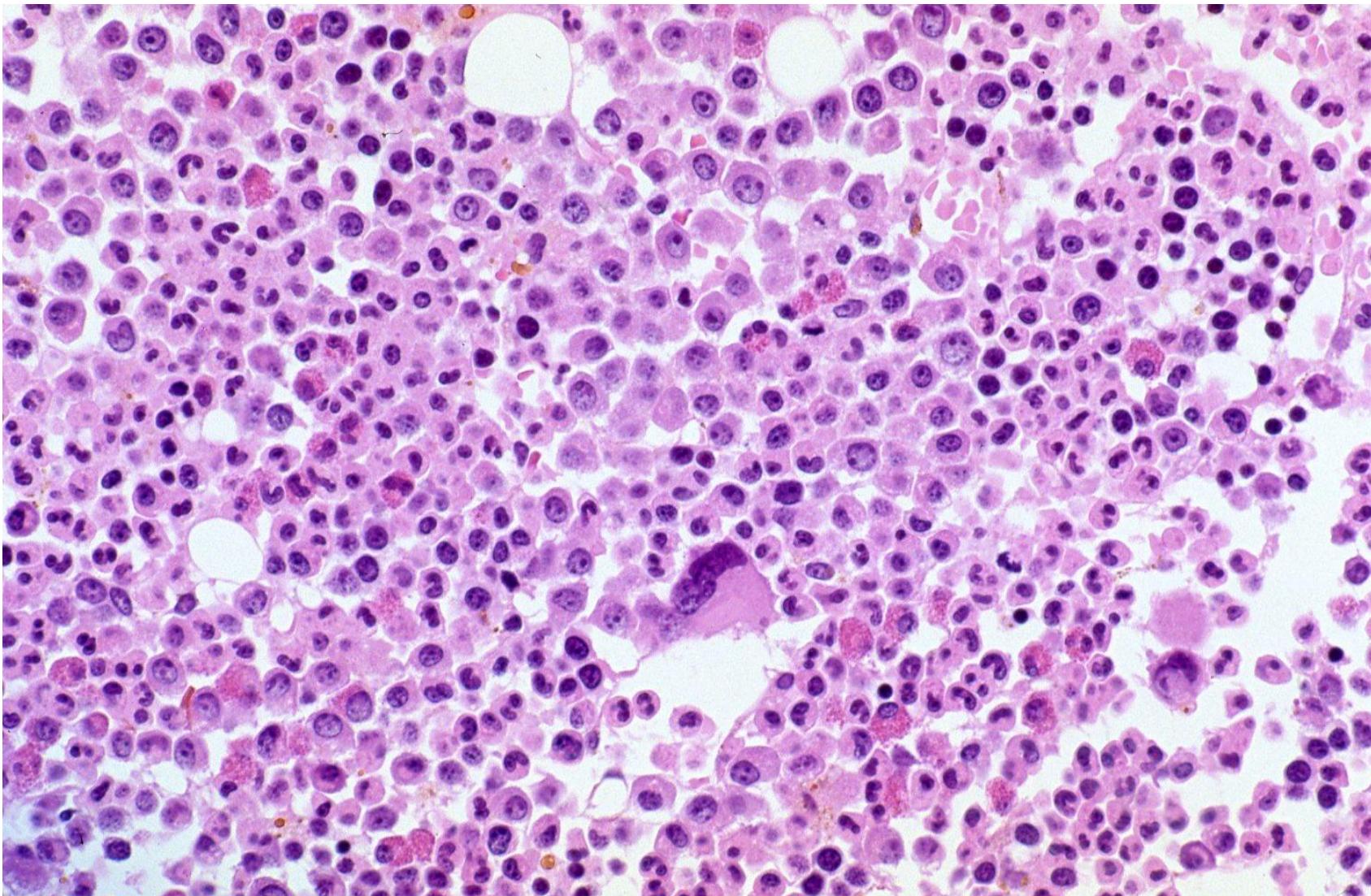
G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. At autopsy performed three months after surgery, lung metastasis by poorly differentiated squamous cell carcinoma was proven (H&E-6).



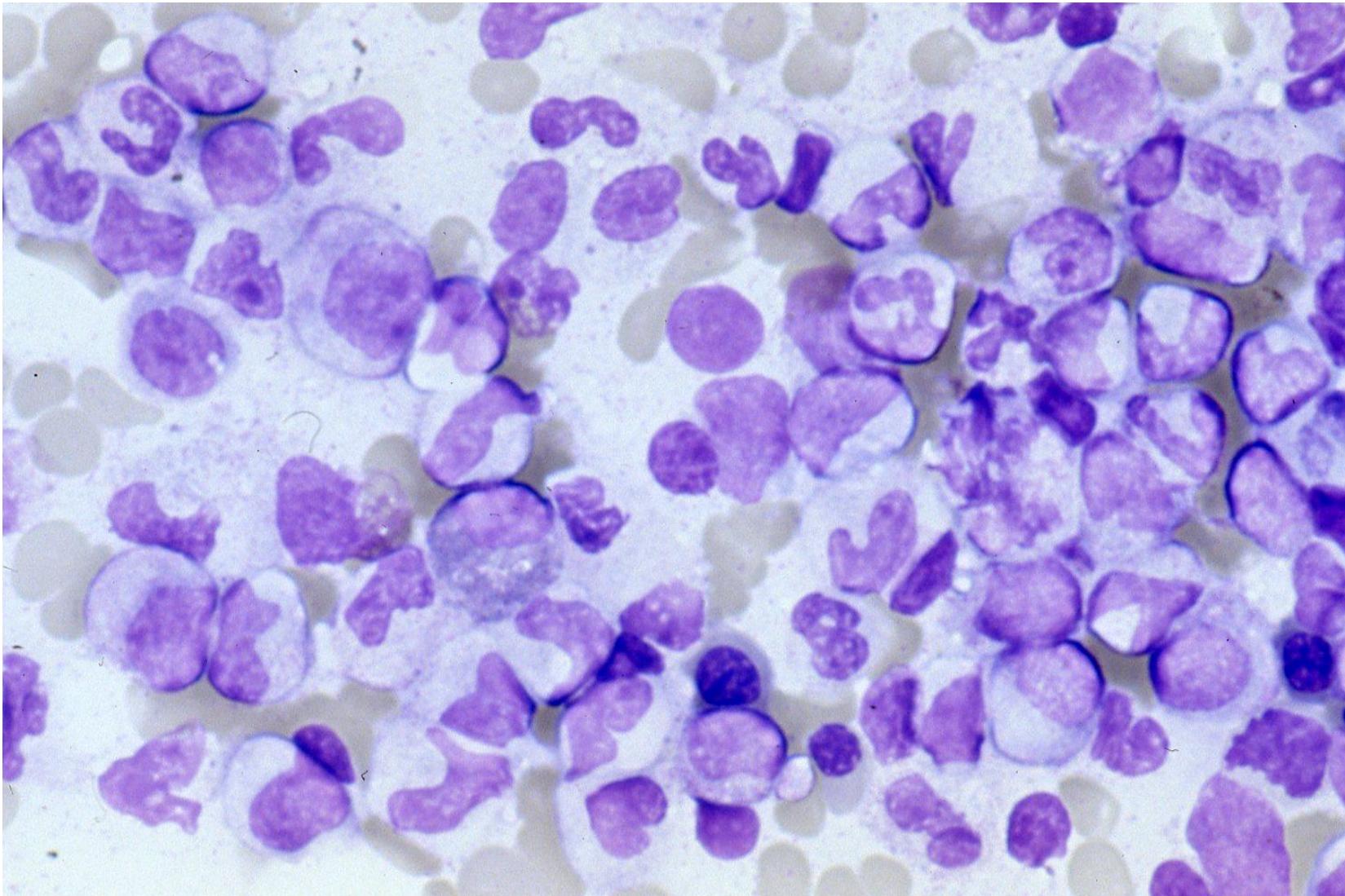
G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. At autopsy performed three months after surgery, lung metastasis by poorly differentiated squamous cell carcinoma was proven. A good number of neutrophils are seen among the cancer cells (H&E-7).



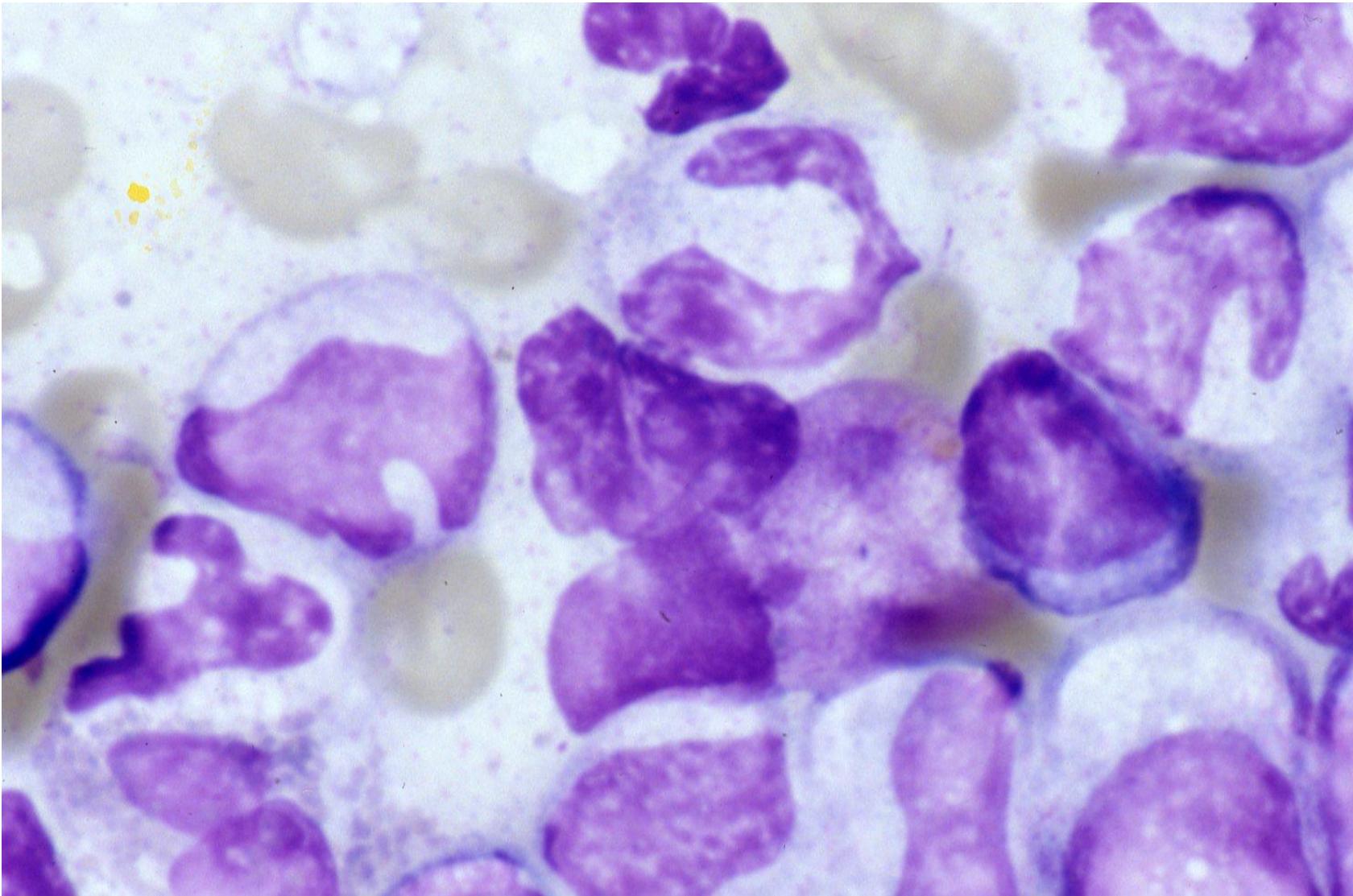
G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. At autopsy performed three months after surgery, the bone marrow shows marked hyperplasia (H&E-8).



G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. At autopsy performed three months after surgery, the bone marrow shows marked myeloid hyperplasia (H&E-9).



G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. At autopsy performed three months after surgery, the bone marrow smear shows marked myeloid hyperplasia (May-Giemsa-1).



G-CSF-producing squamous cell carcinoma of the pharynx seen in a 68 y-o male patient. The peripheral blood leukocyte count was raised up to $23,000/\mu\text{L}$. At autopsy performed three months after surgery, the bone marrow smear shows marked myeloid hyperplasia (May-Giemsa-2).