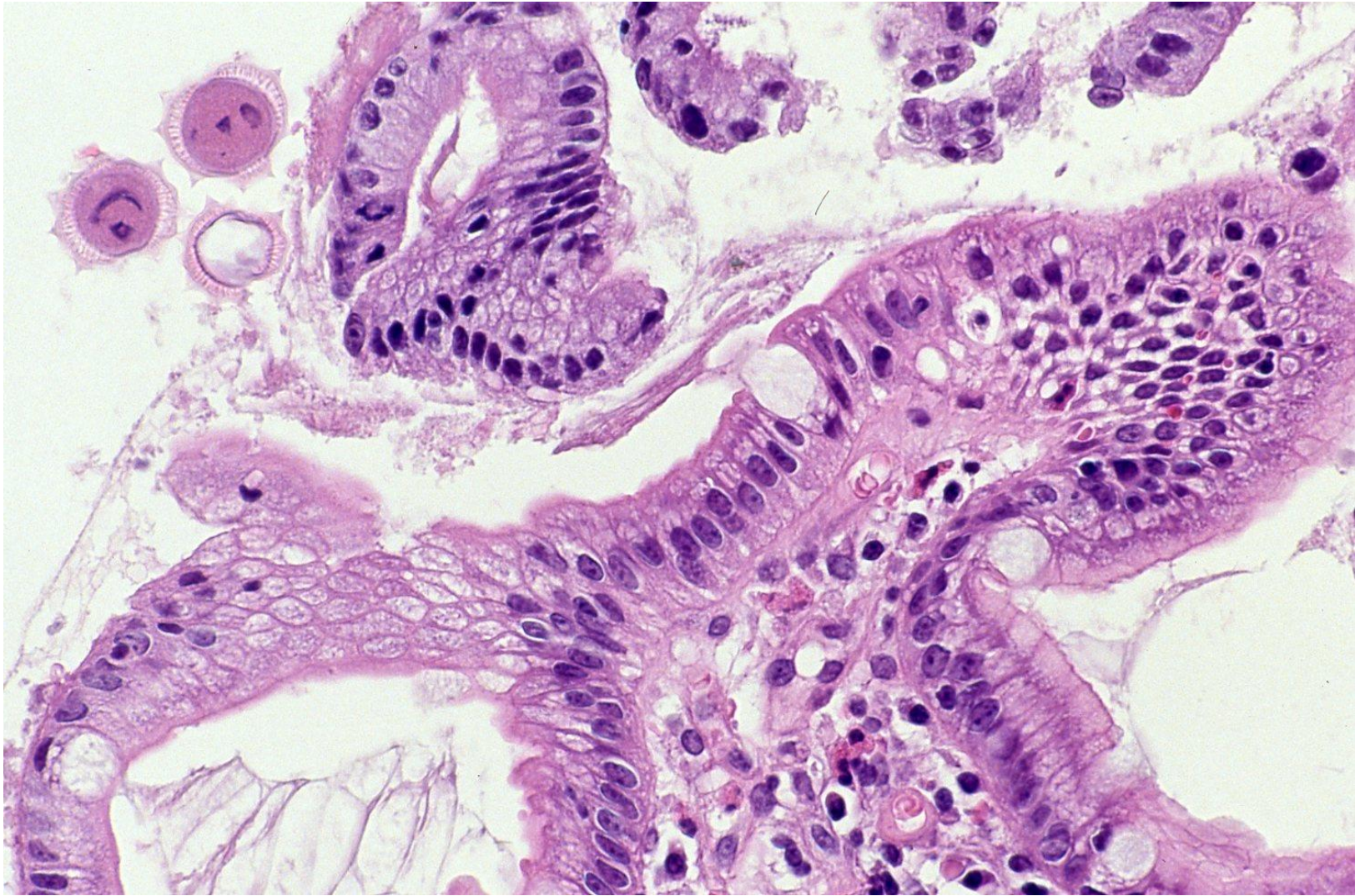


Collections of pollens

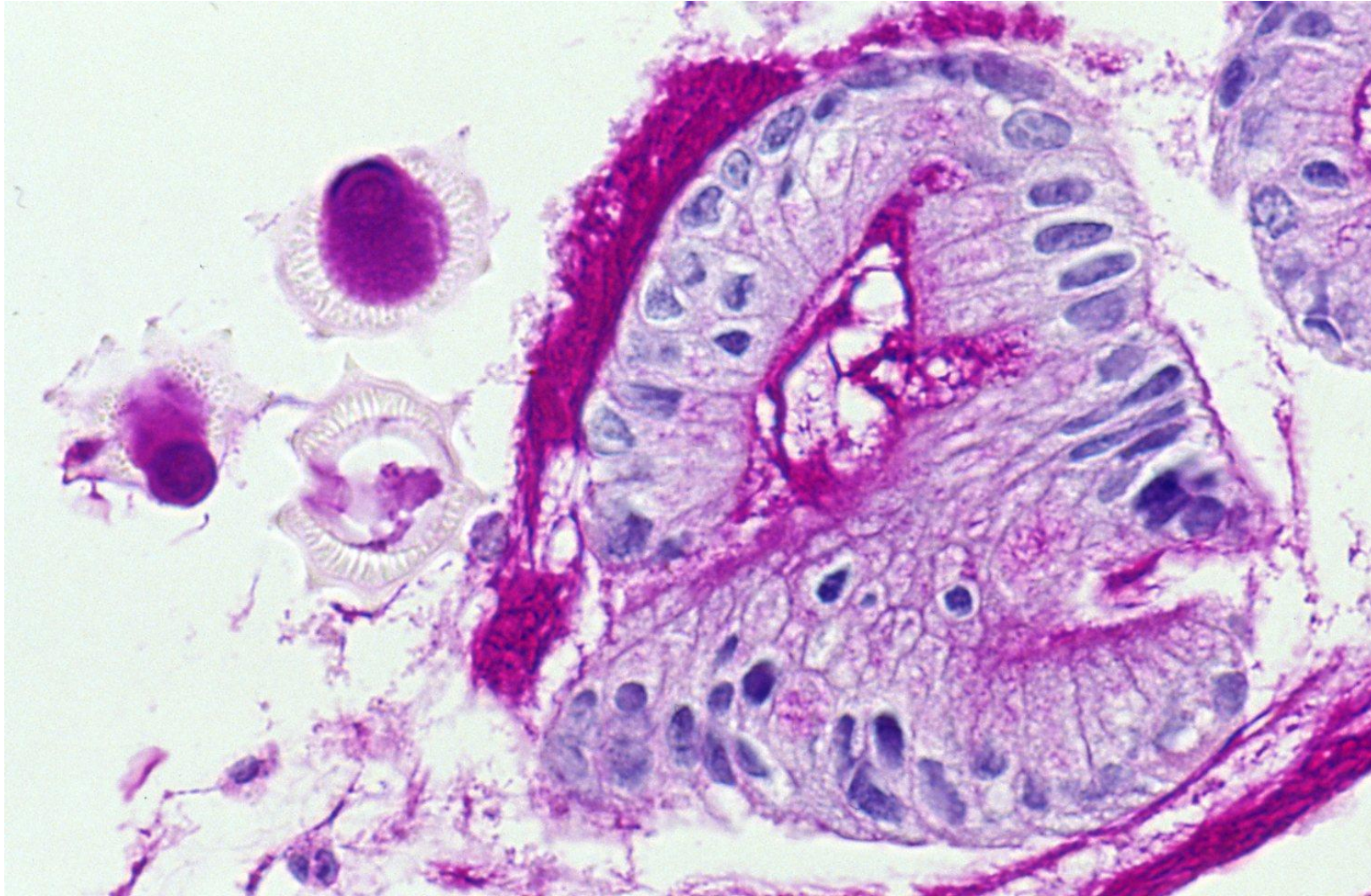
Pollen grains (male microgametophytes) vary in size, shape, and surface characteristics depending on the plant species. They have a double wall consisting of a thin inner wall (endospore) composed of cellulose and a thick outer wall (exospore) composed of sporopollenin (a protector for the microgametophytes during transportation toward the pistil or female cone). The shape and the external features of the exospore are highly variable. The surface of the pollen grain contains various waxes and proteins. The proteins on the surface of pollen are often recognized by immune cells to be the source of allergic reactions to pollen. The internal structure of the pollen is called intine while the external one as exine.



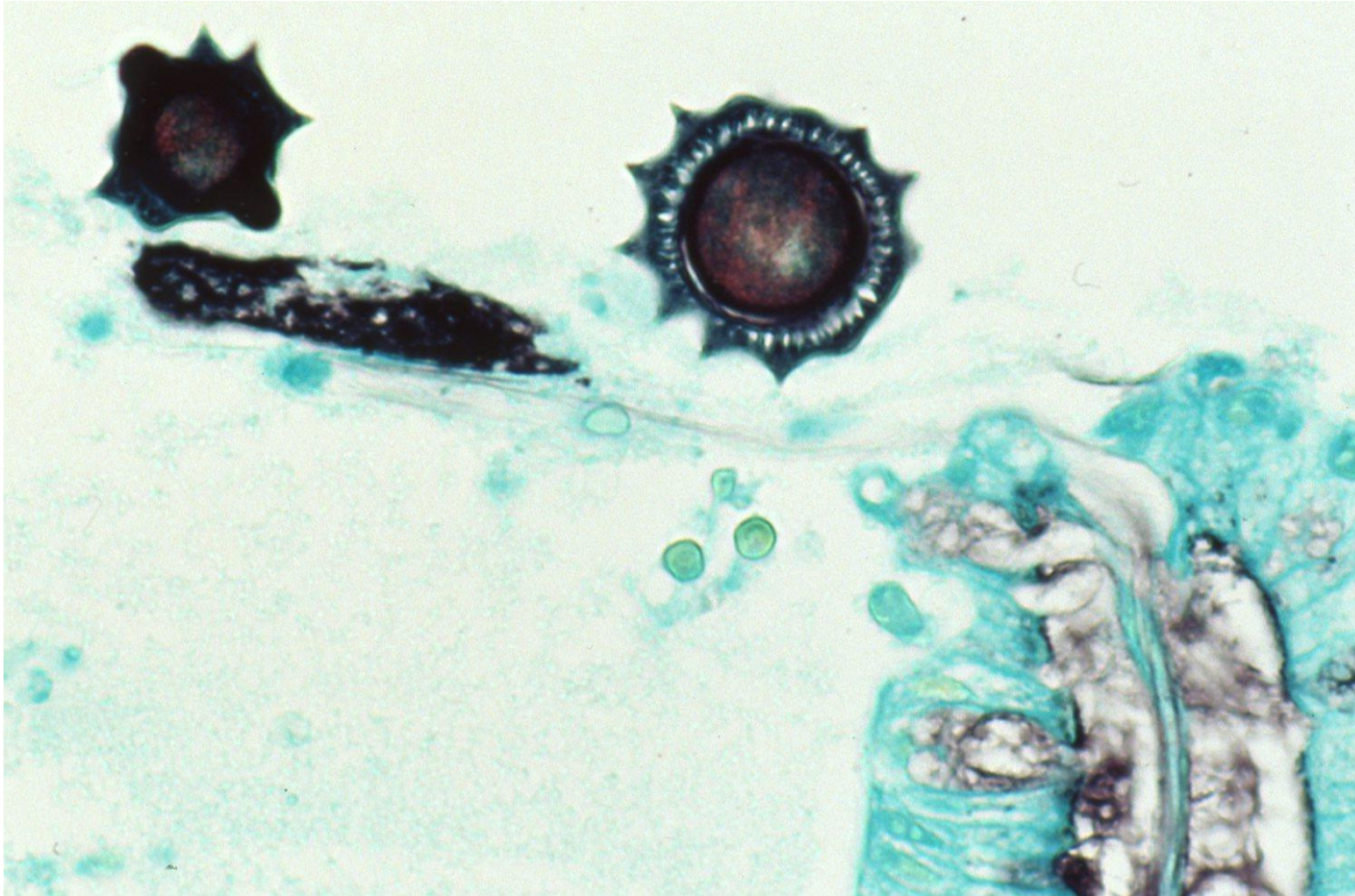
Gastric biopsy specimen. Contaminated pollens are seen on the specimen. H&E-1



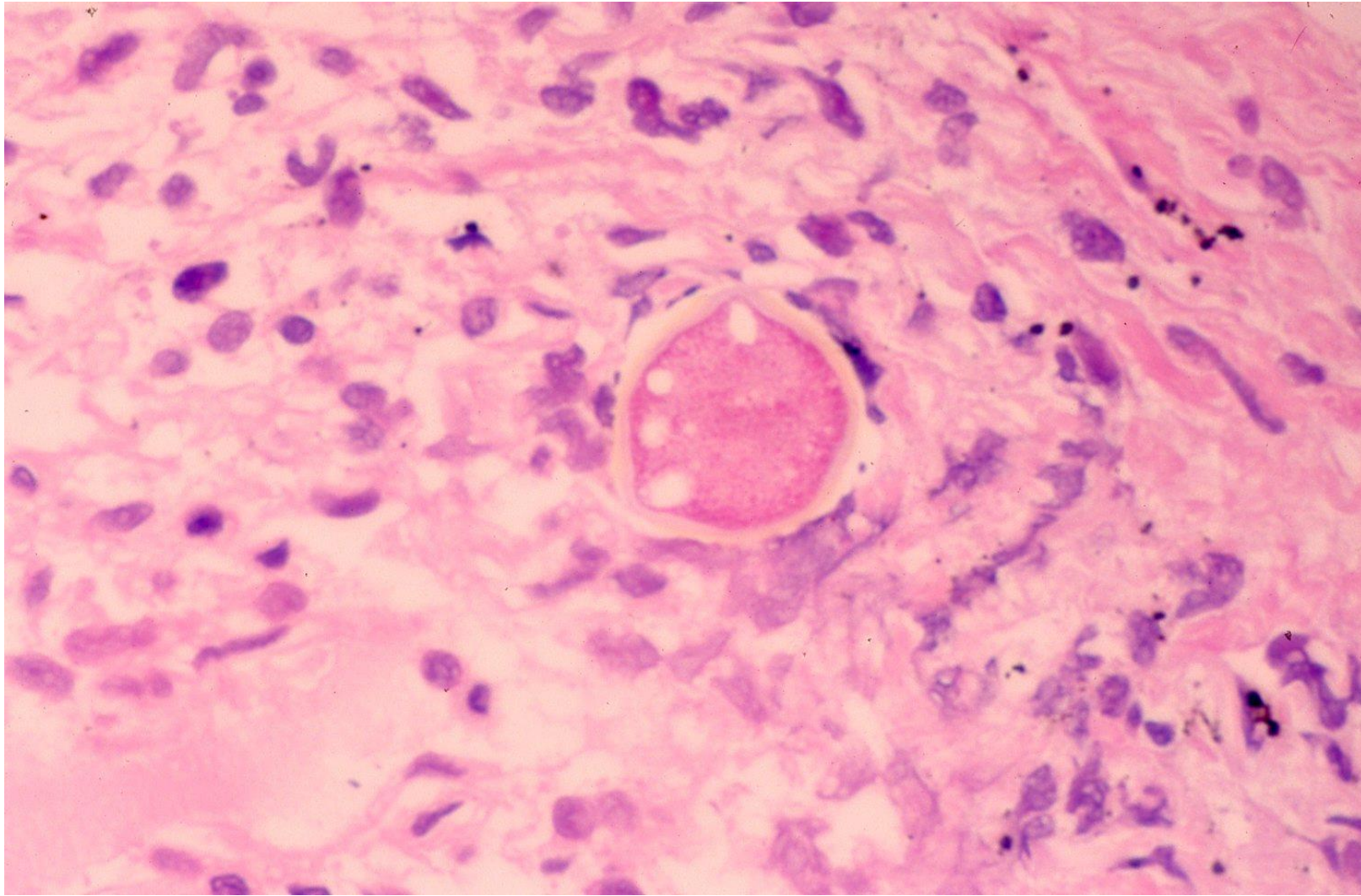
Gastric biopsy specimen. Contaminated pollens are seen on the specimen. H&E-2



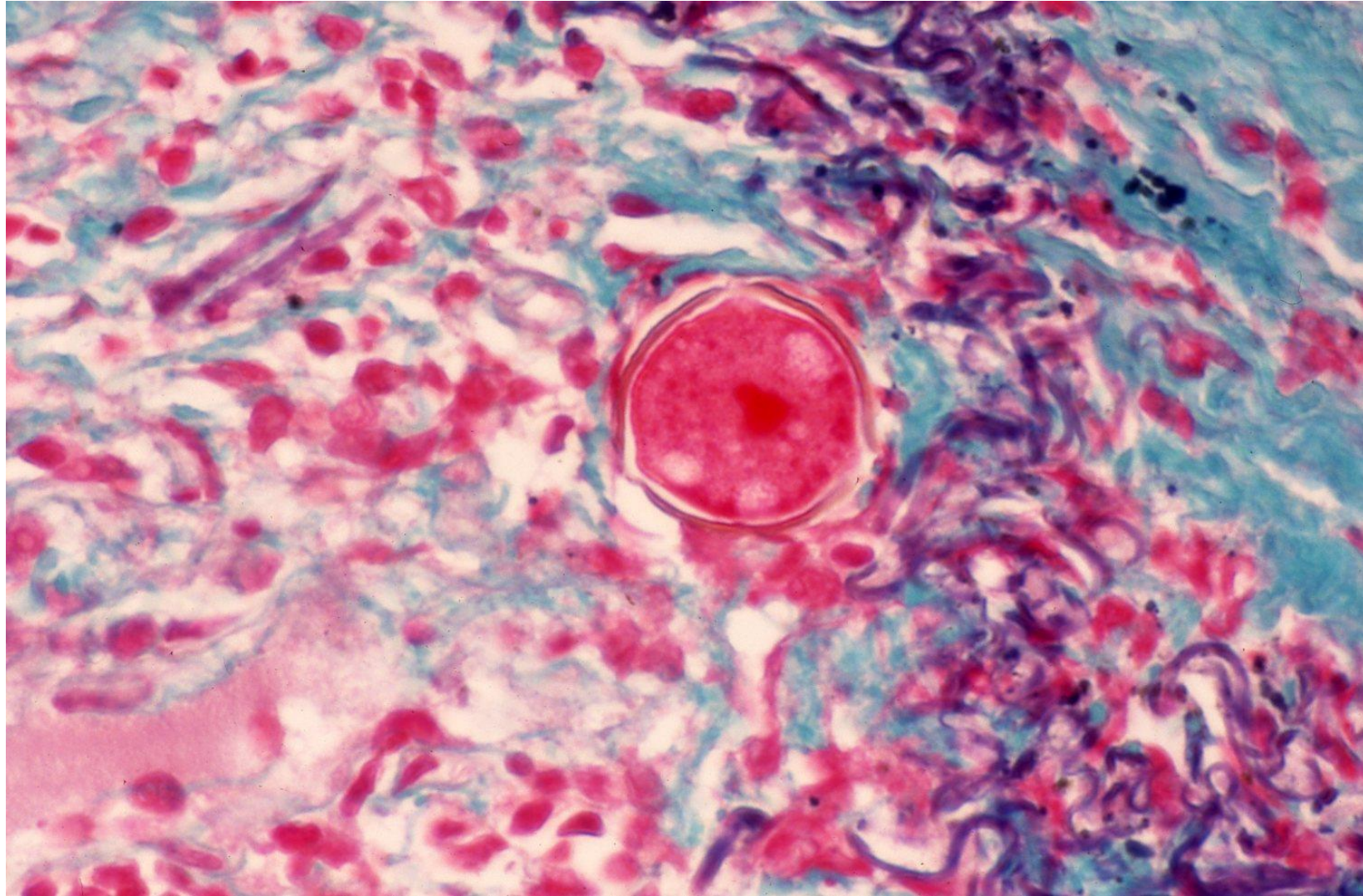
Gastric biopsy specimen. Contaminated pollens are seen on the specimen. The intine is strongly PAS-reactive. PAS



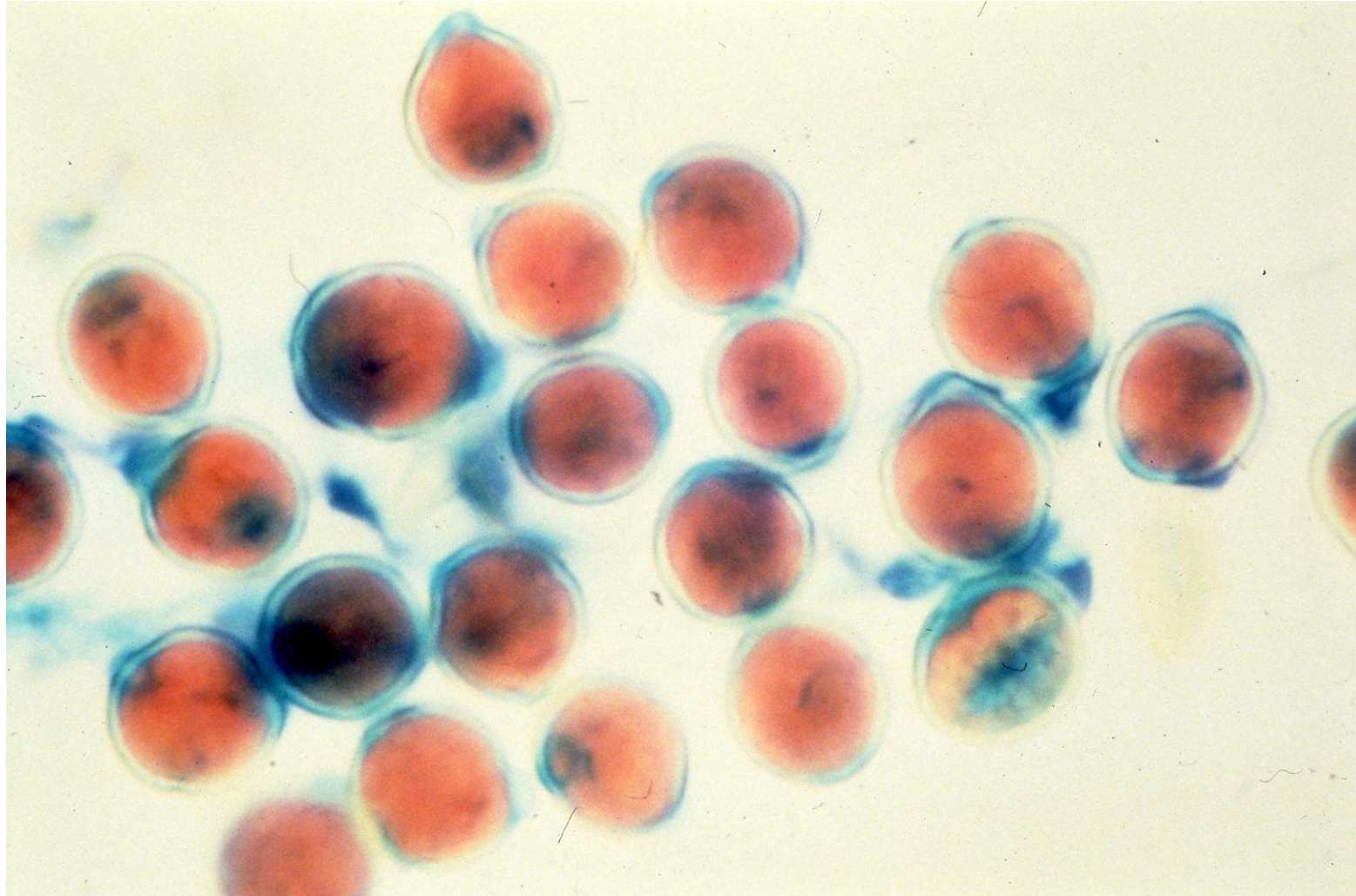
Gastric biopsy specimen. Contaminated pollens are seen on the specimen. Both of the intine and exine are Grocott-positive. Grocott



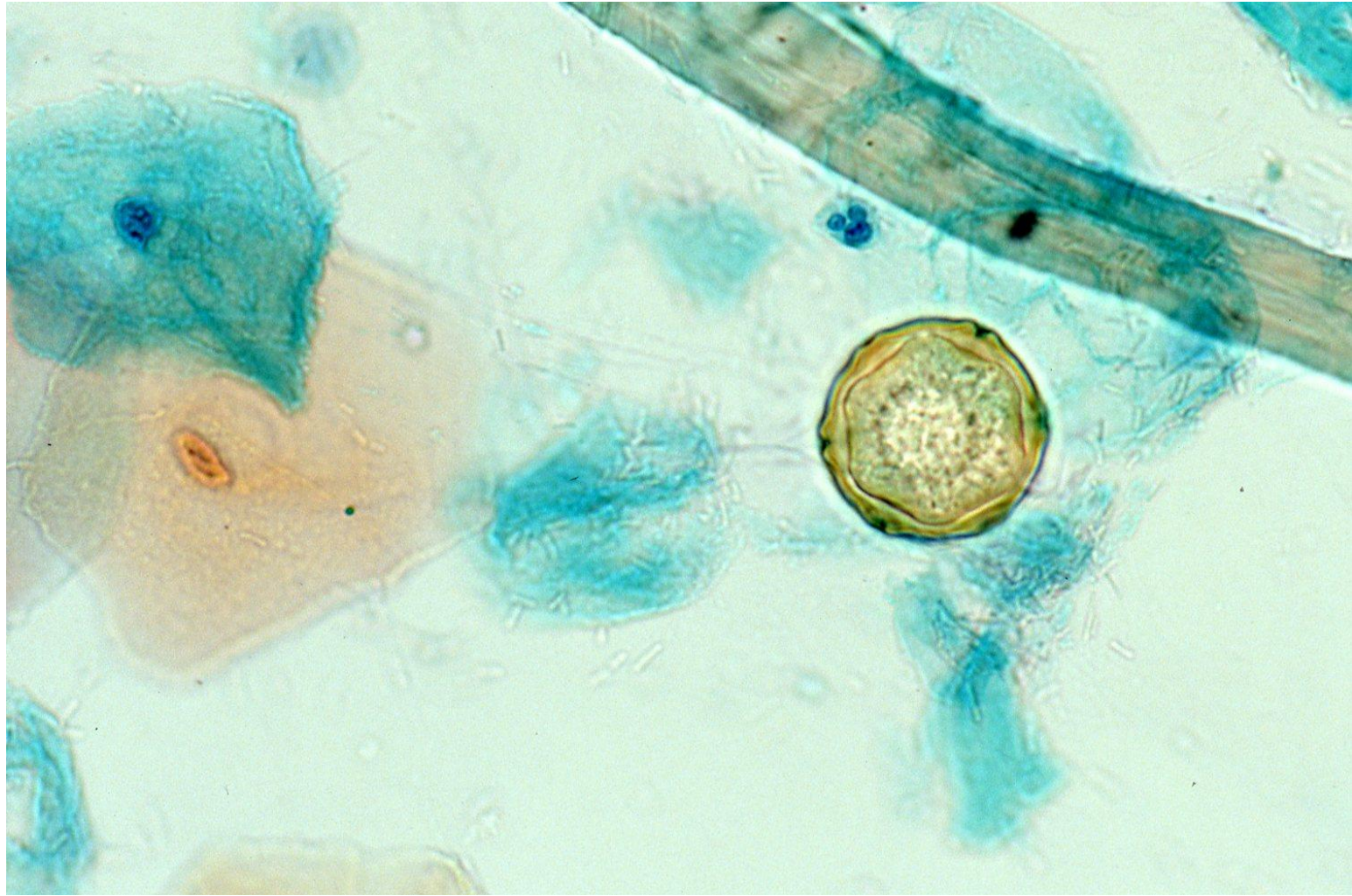
Transbronchial lung biopsy specimen. A single pollen is contaminated. H&E



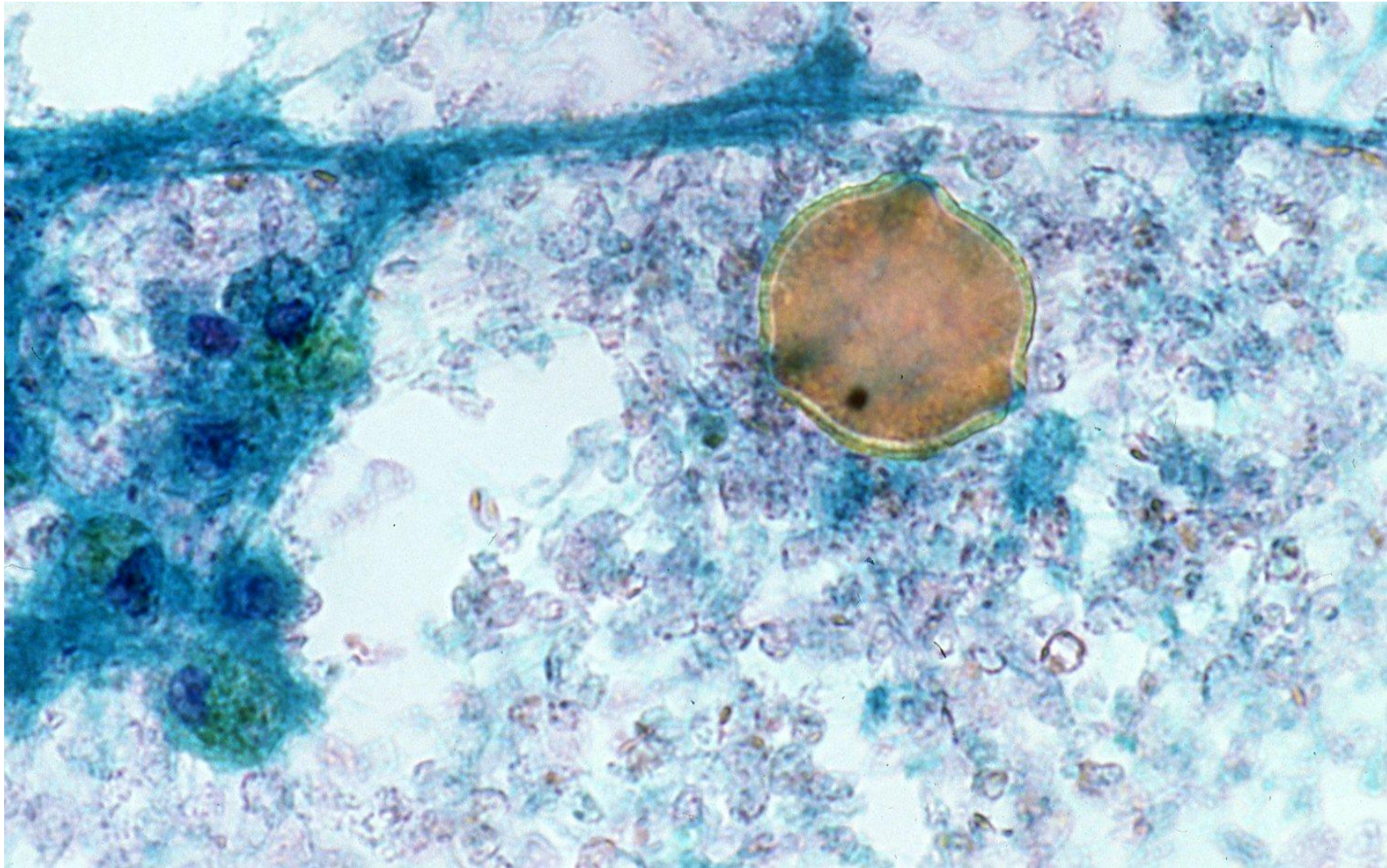
Transbronchial lung biopsy specimen. A single pollen is contaminated.
Masson trichrome



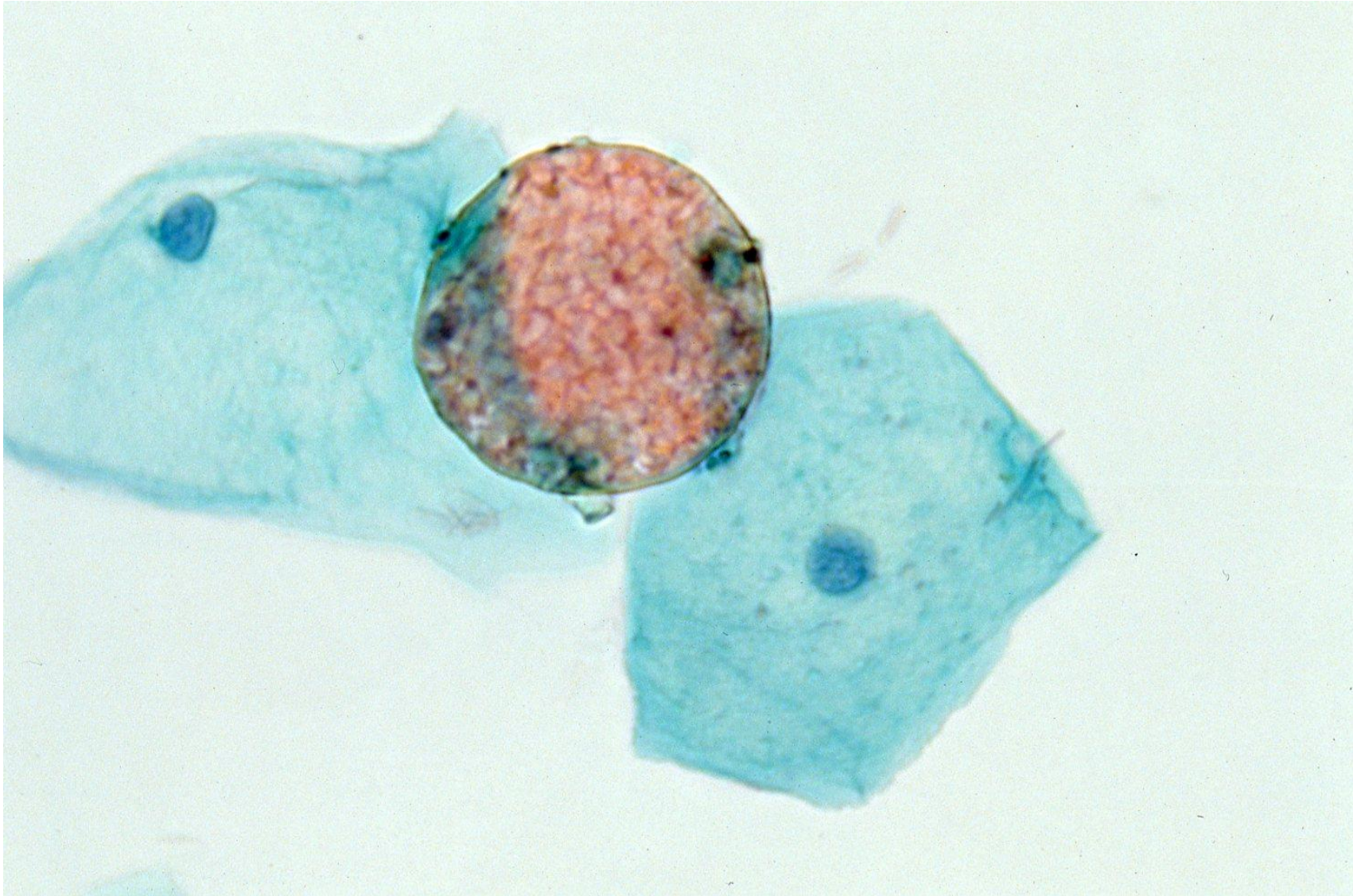
Urine cytology specimen. Numbers of pollens are contaminated.
Papanicolaou staining



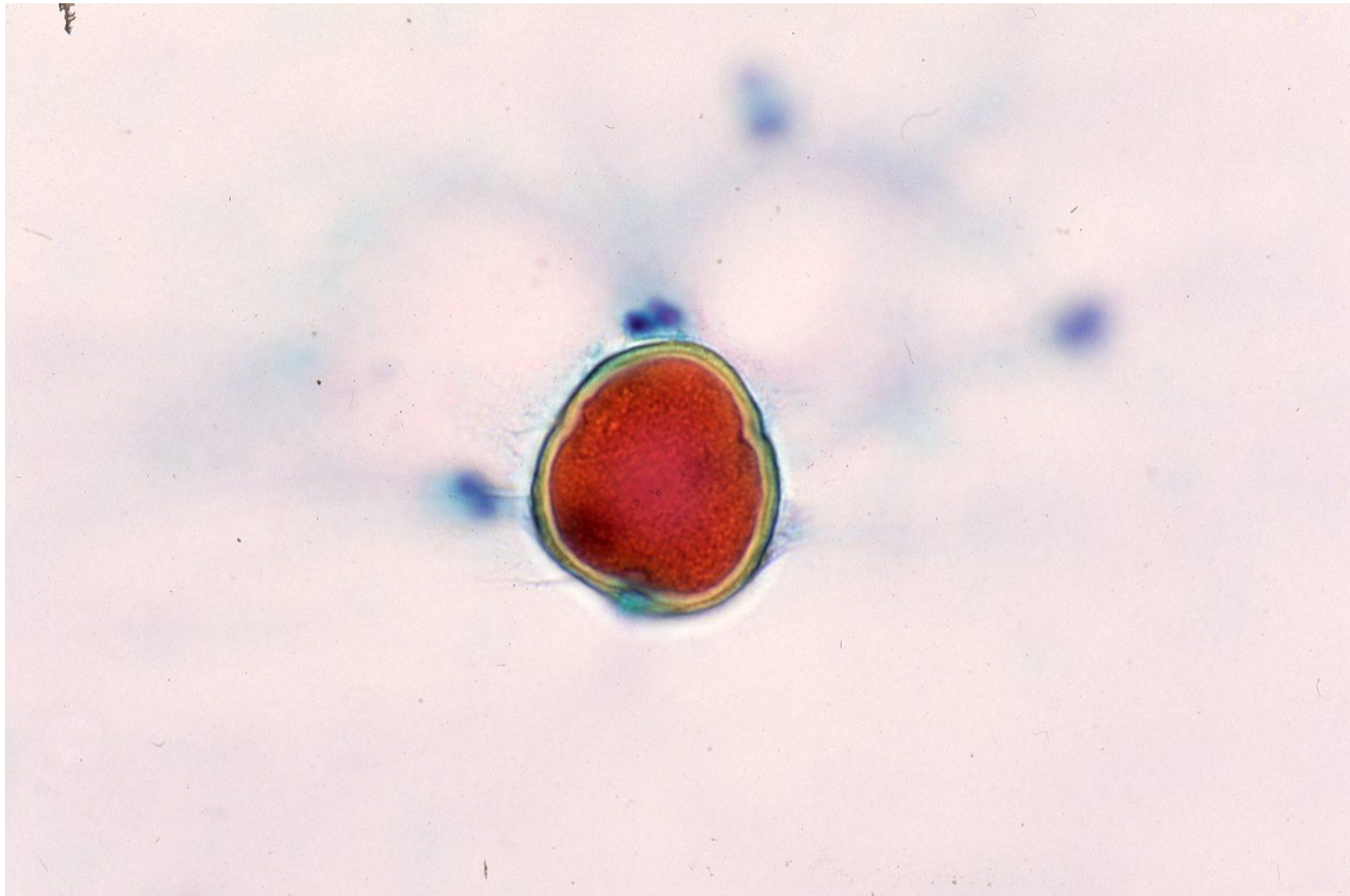
Gynecological cytology specimen. A single pollen is contaminated.
Papanicolaou-1



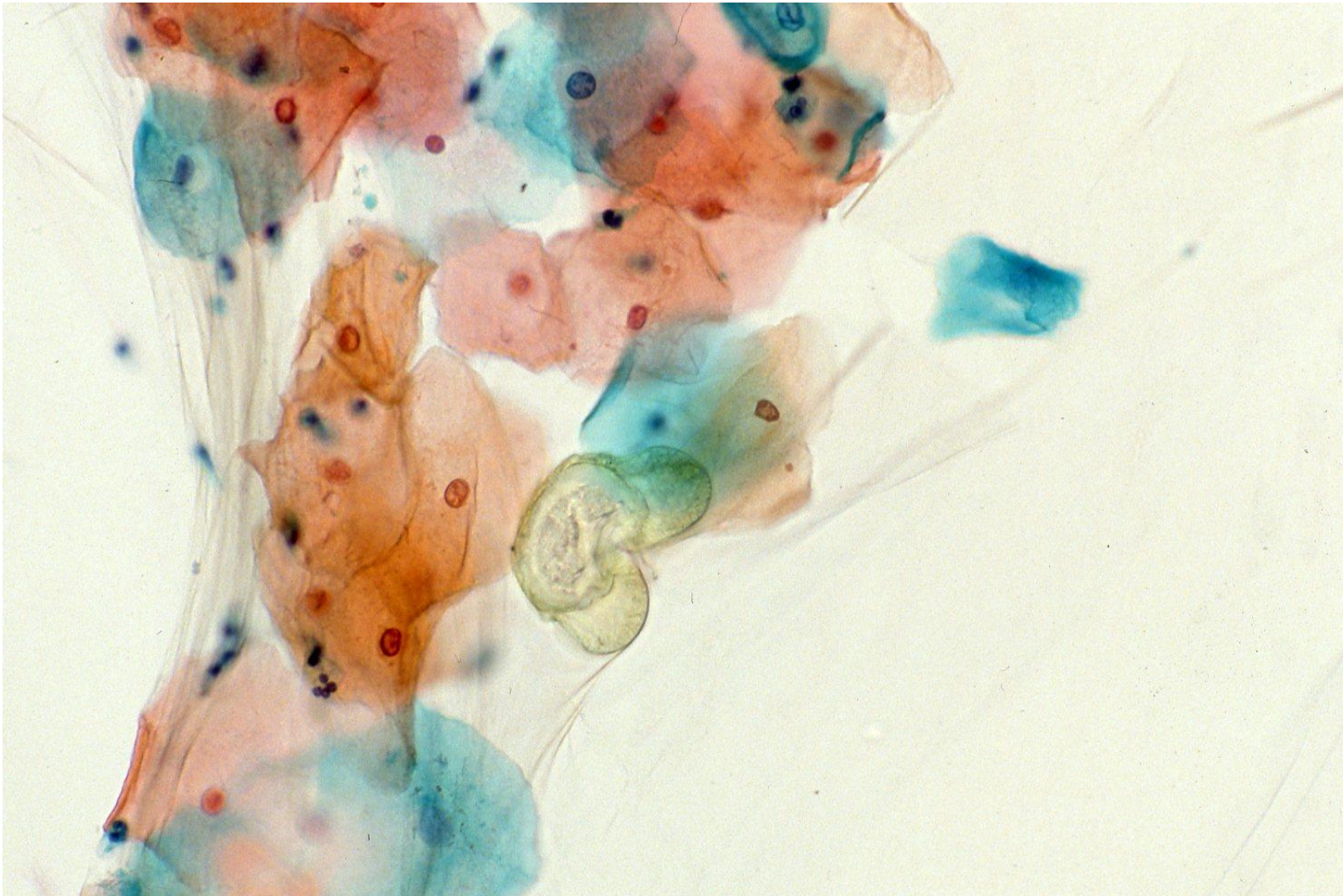
Gynecological cytology specimen. A single pollen is contaminated.
Papanicolaou-2



Gynecological cytology specimen. A single pollen is contaminated.
Papanicolaou-3



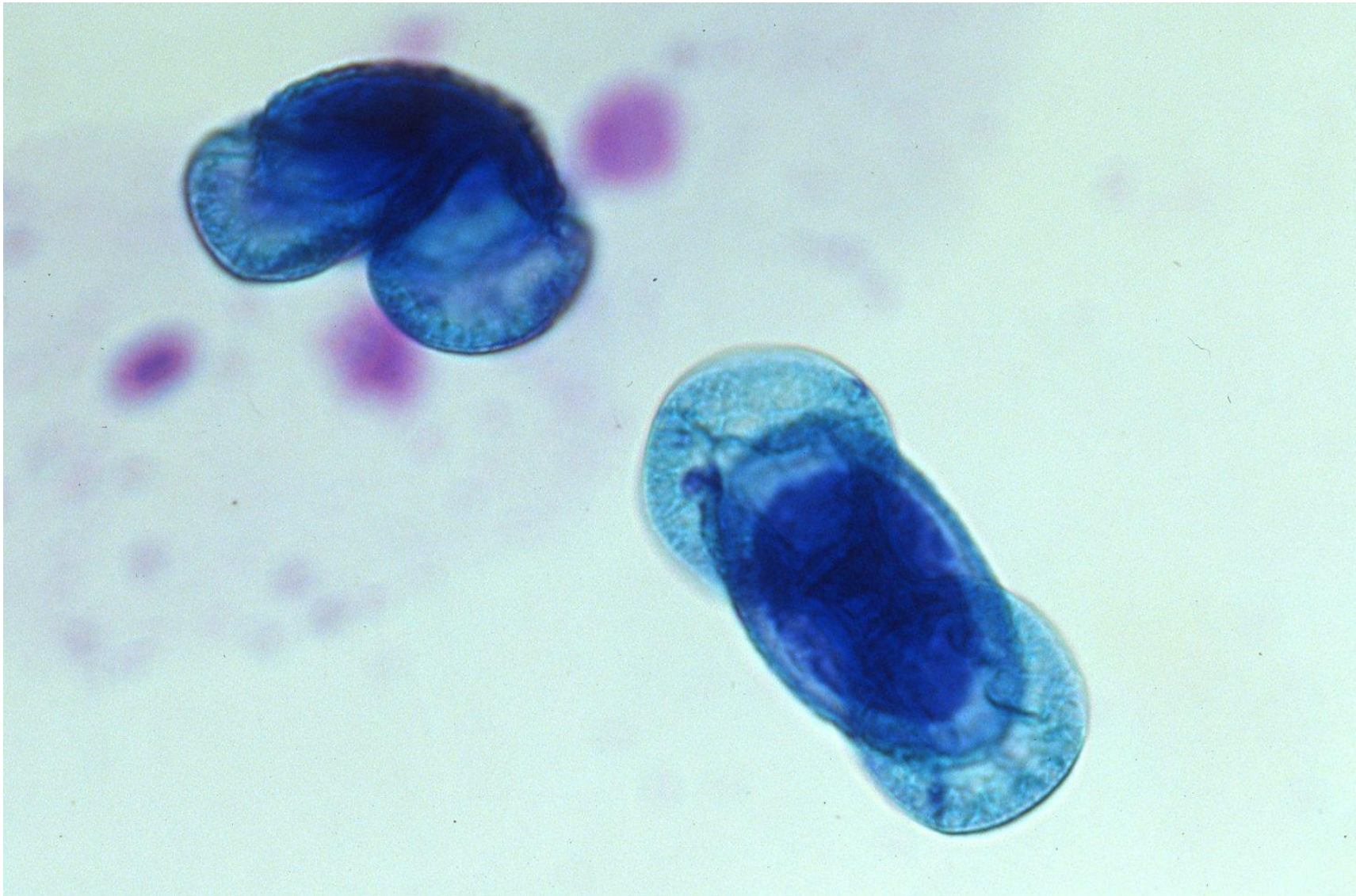
Gynecological cytology specimen. A single pollen is contaminated.
Papanicolaou-4



Gynecological cytology specimen. A single pollen (probably pollen of pine tree) is contaminated. Papanicolaou-5



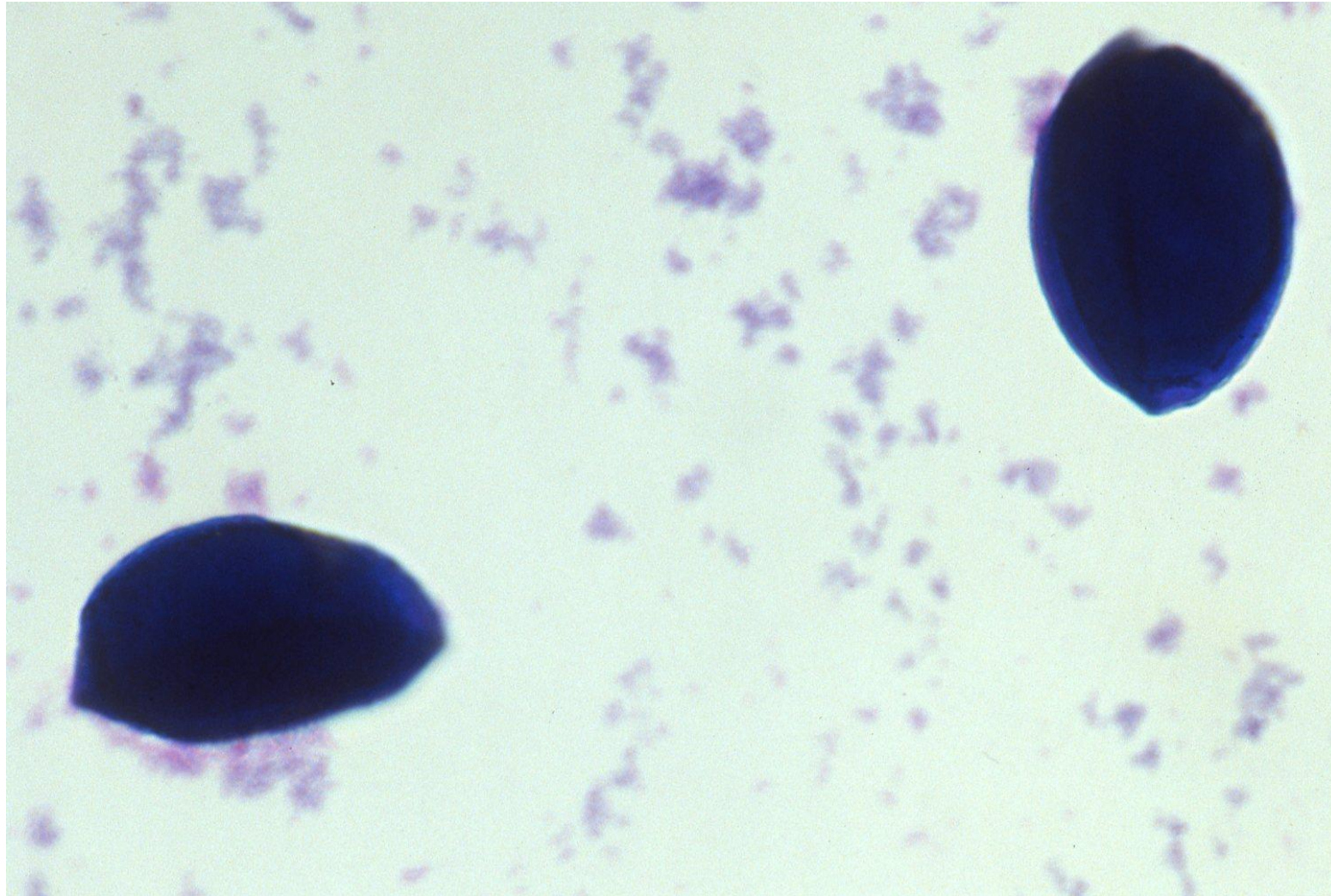
Pollens of pine (sampled from the stamen). Double-headed exine structures are unique. Papanicolaou



Pollens of pine (sampled from the stamen). Double-headed exine structures are unique. Giemsa



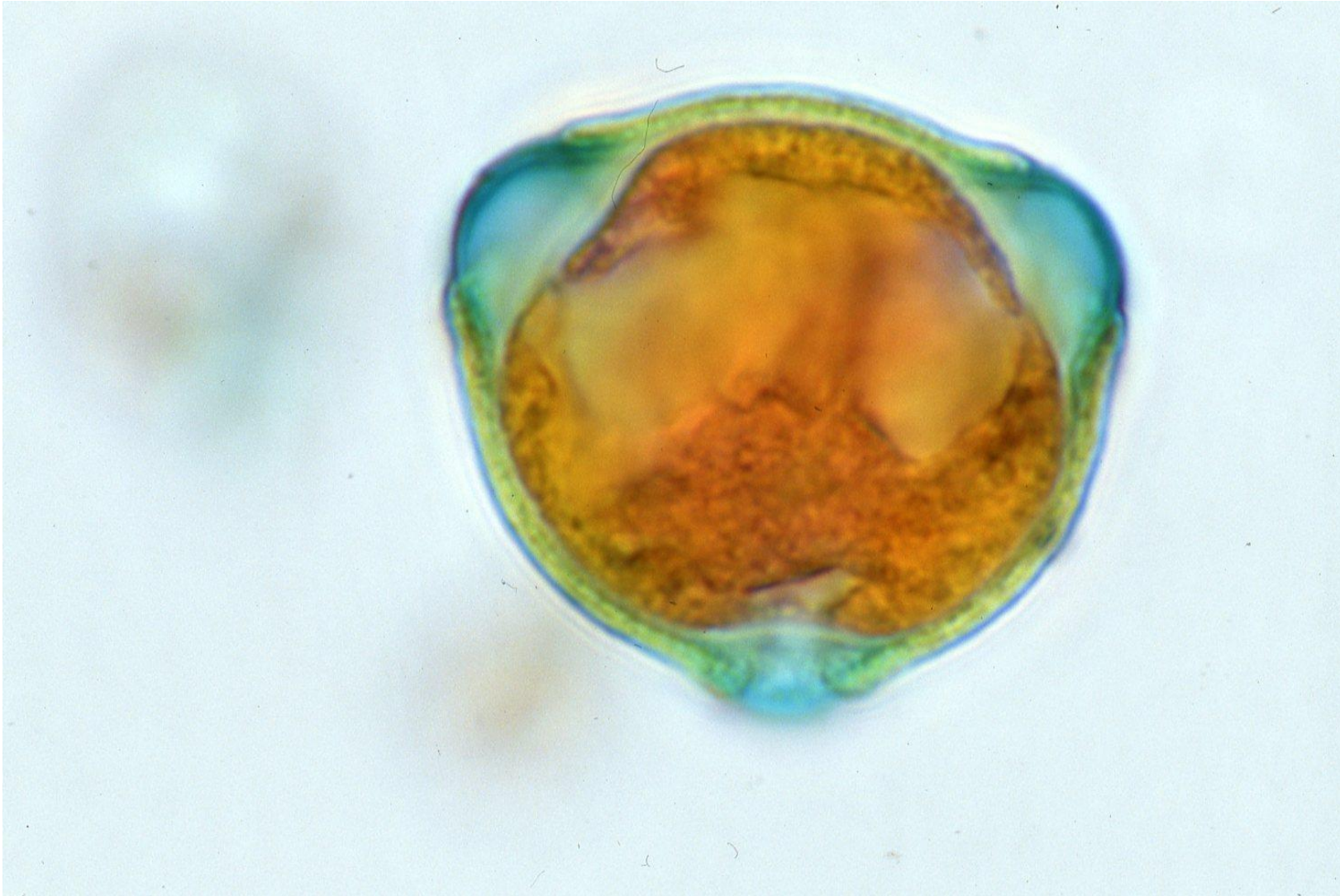
Pollens of Japanese magnolia (sampled from the stamen).
Persimmon seed-like structures are observed. Papanicolaou



Pollens of Japanese magnolia (sampled from the stamen).
Persimmon seed-like structures are observed. Giemsa



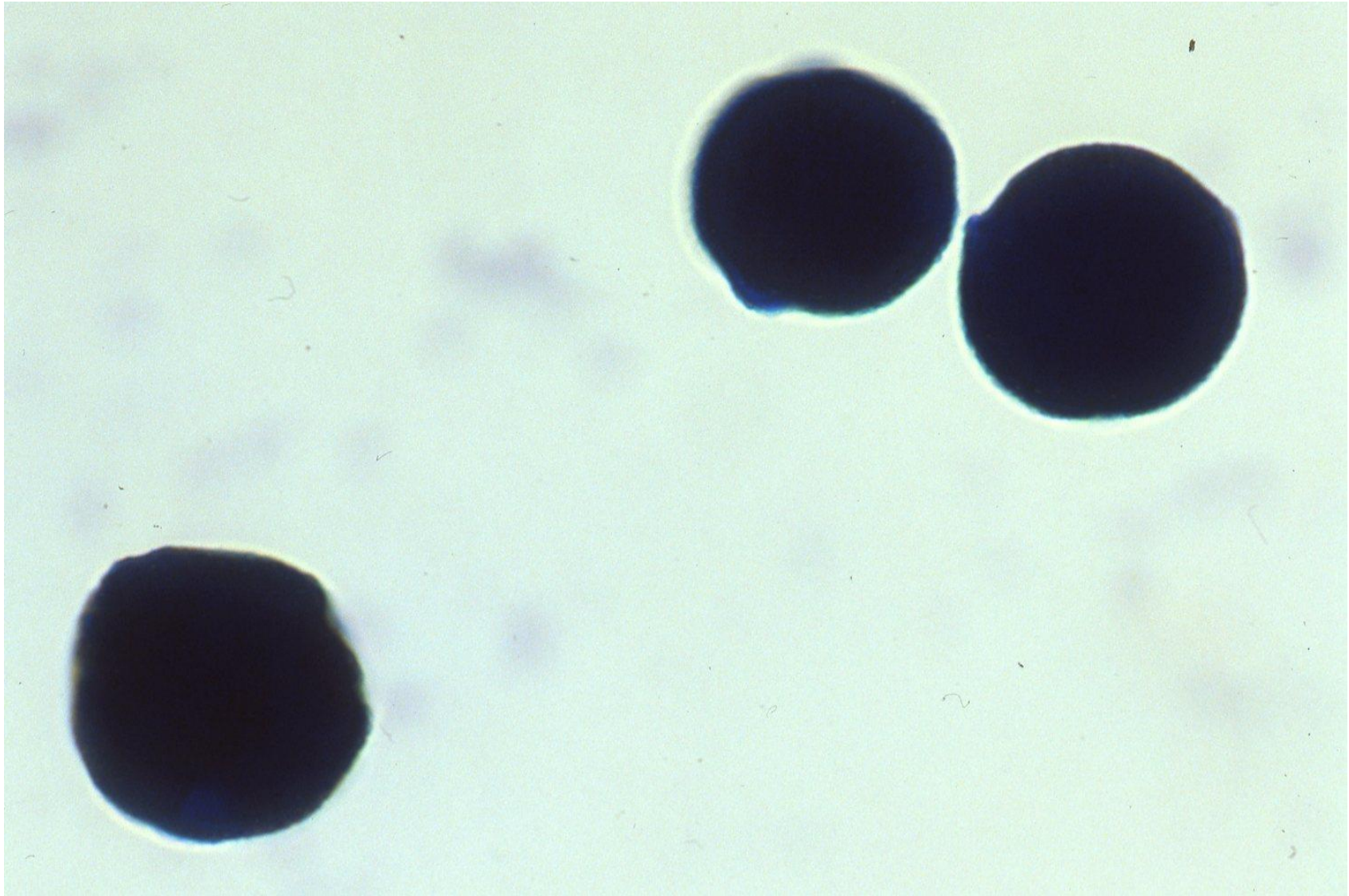
Pollen of Japanese cedar (sampled from the stamen). The presence of papilla on the exine is characteristic. Papanicolaou-a



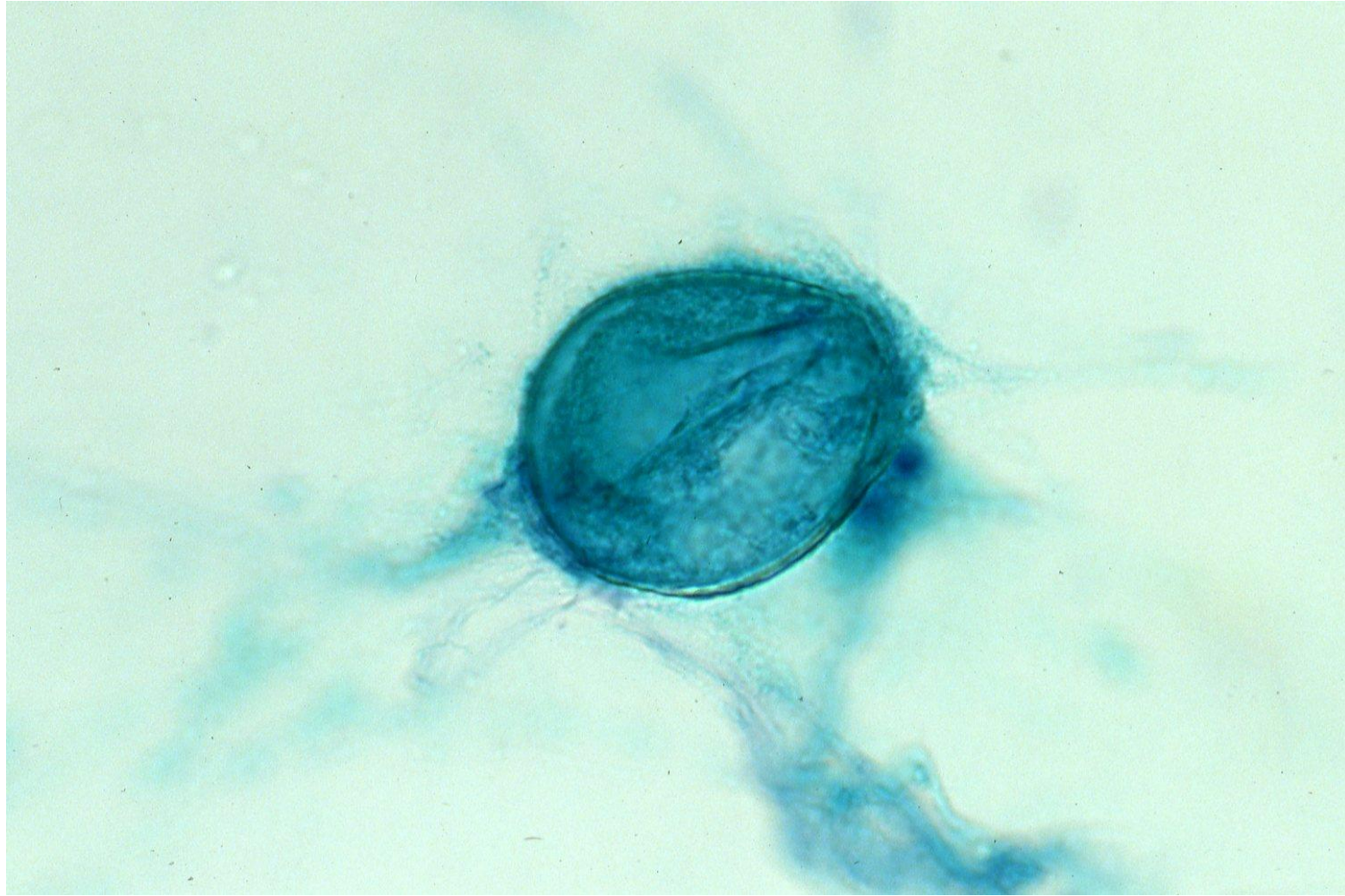
Pollen of Japanese cedar (sampled from the stamen). The presence of papilla on the exine is characteristic. Papanicolaou-b



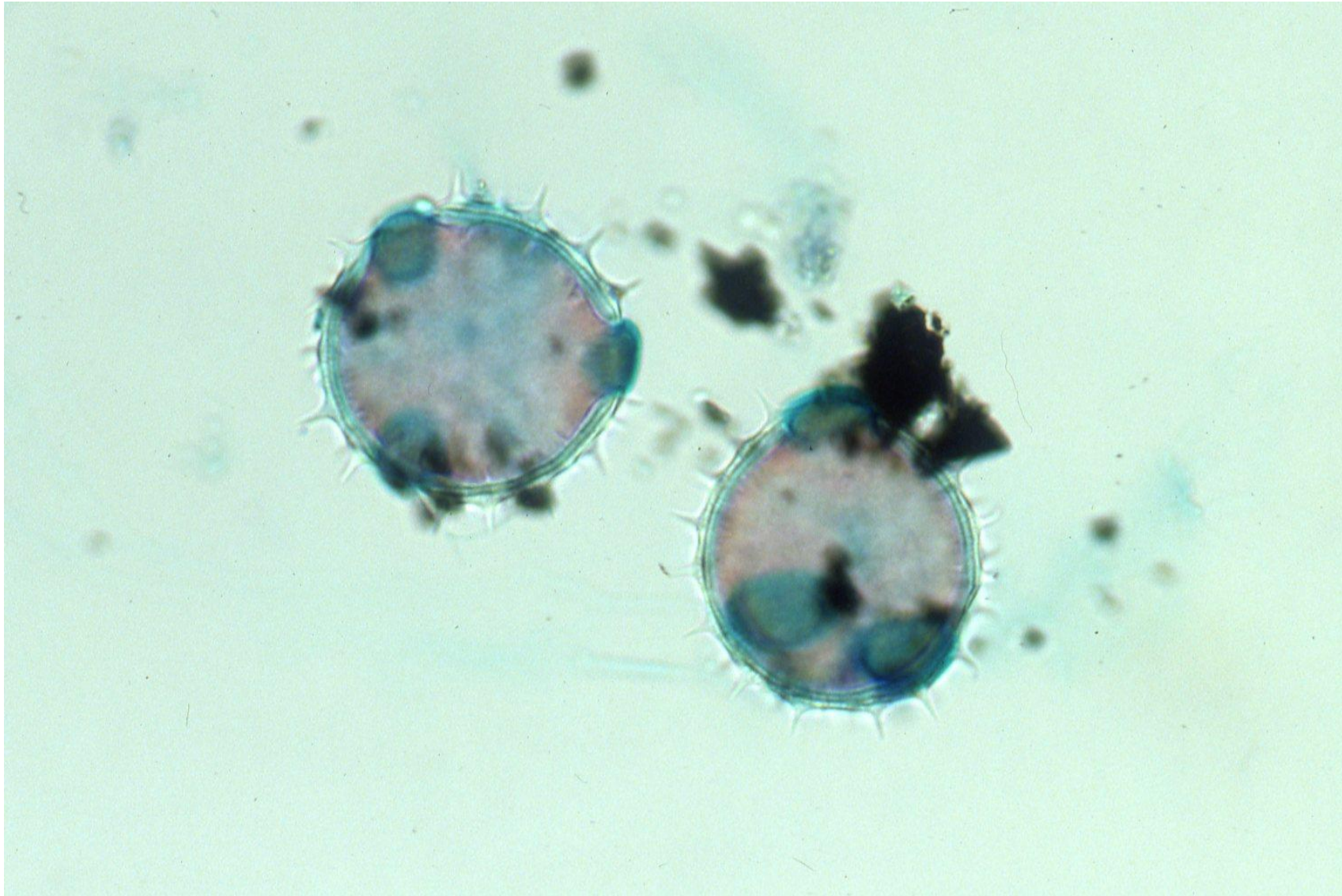
Pollen of camellia (Tsubaki in Japanese) (sampled from the stamen). Papanicolaou



Pollens of camellia (Tsubaki in Japanese) (sampled from the stamen). Giemsa



Pollen of *Iris tectorum* (Ichihatsu in Japanese) (sampled from the stamen). Papanicolaou



Pollens of marigold (sampled from the stamen). The presence of fine spicules on the exine is noted. Papanicolaou