定例会

ハートライフ病院　臨床検査科/病理

症例②　60歳代　女性

【既往歴】右真菌性角膜潰瘍、ＤＭ

【現病歴】

当院にて、右真菌性角膜潰瘍の加療中。

右側頭部痛精査で施行されたＭＲＩ+ＭＲＡにて左側頭部の腫瘤を発見。

症例②

【ＭＲＩ+ＭＲＡ　所見】

左側頭部の脳実質内に、径2×1ｃｍの腫瘤あり。

硬膜を底辺としてドーム上の形態です。

拡散強調像で高信号。

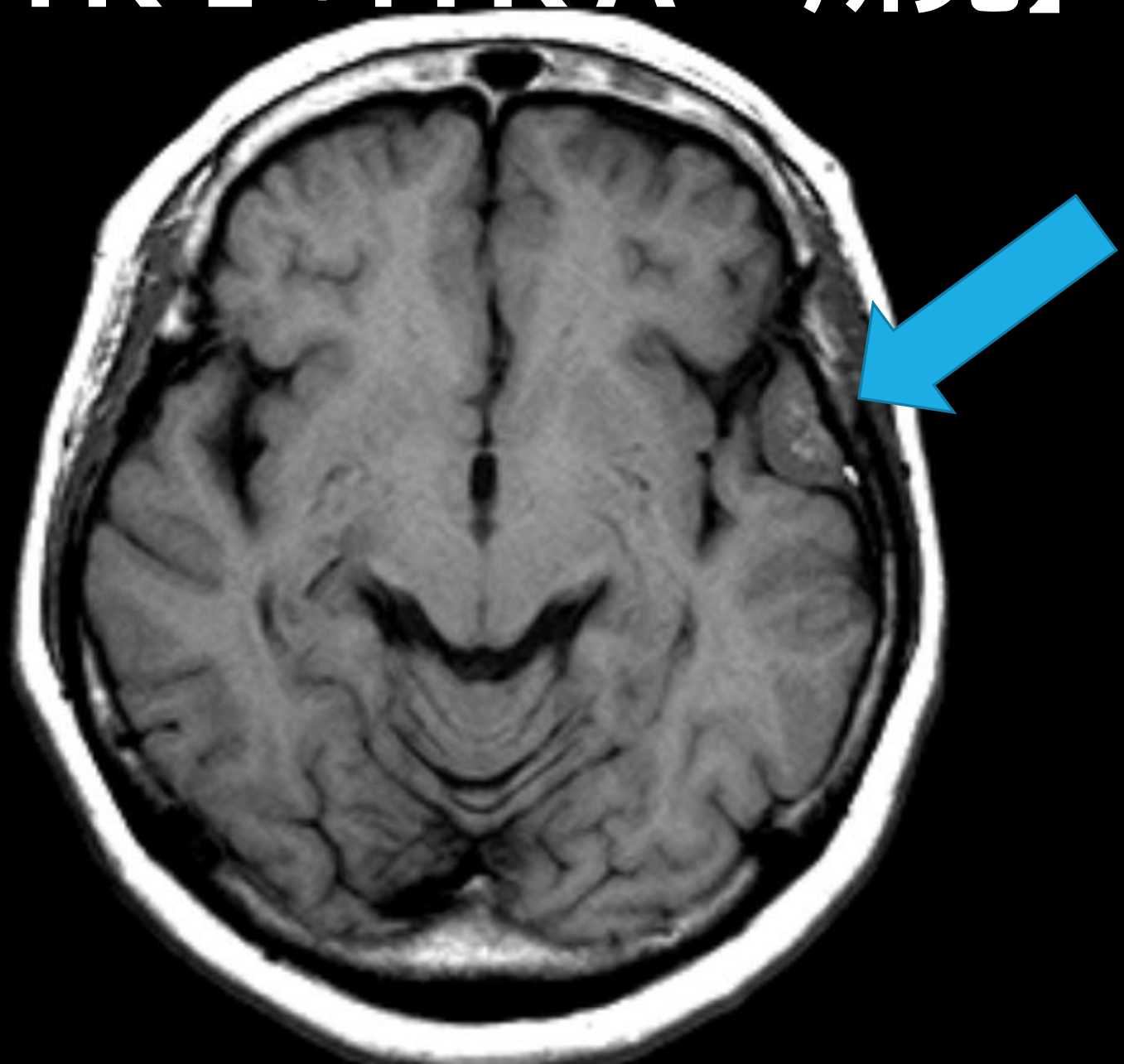
側頭葉の圧排所見はわずか、浮腫を伴わない。

その他、頭蓋内に明らかな脳血管障害やtumorを疑う所見なし。

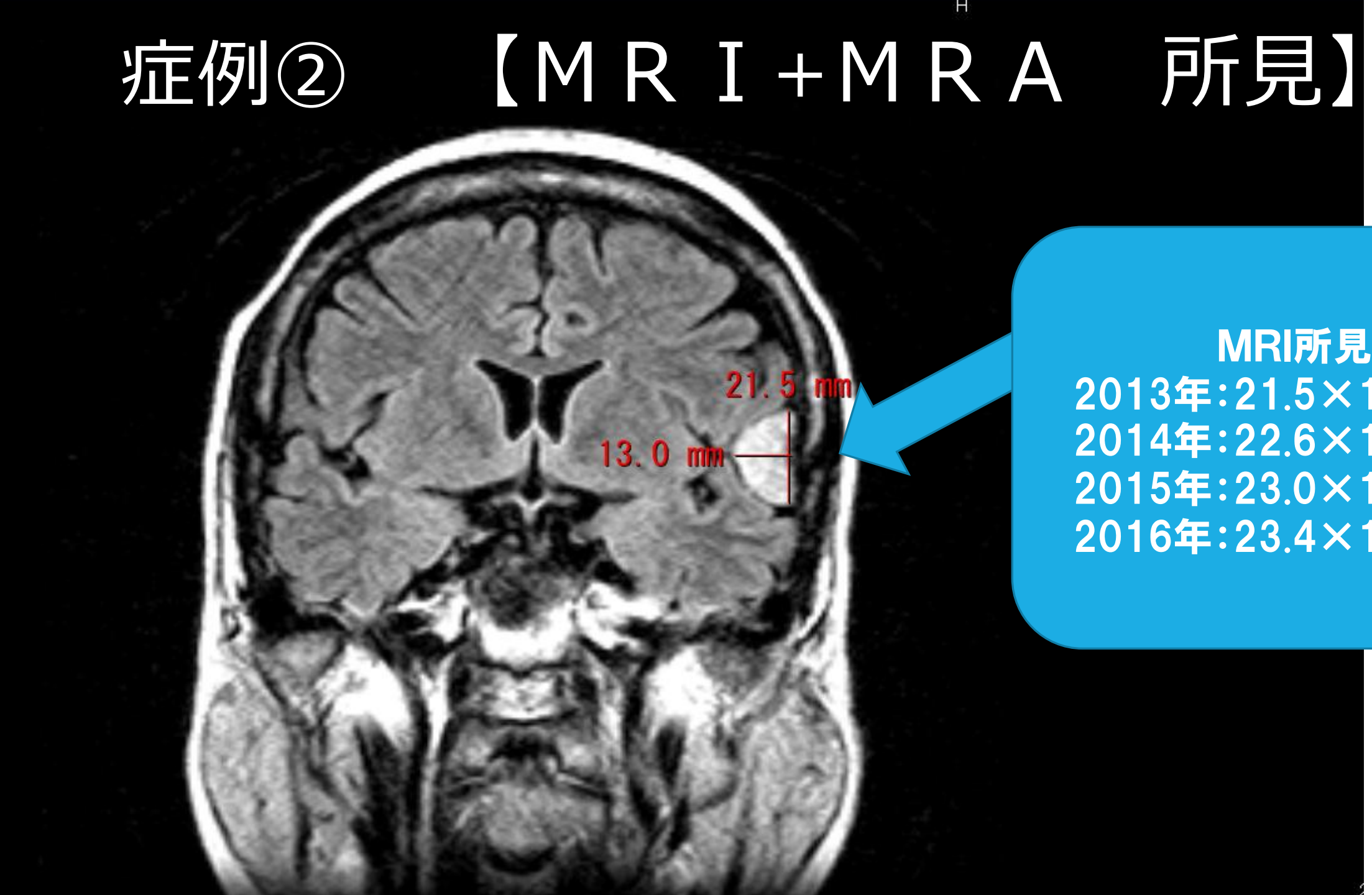
脳室や脳溝の形態正常。

ＭＲＡにて、明らかな狭窄や動脈瘤を疑う所見無なし。

症例②　【ＭＲＩ+ＭＲＡ　所見】



症例②　【ＭＲＩ+ＭＲＡ　所見】



MRI所見

2013年:21.5×13.0mm
2014年:22.6×13.0mm
2015年:23.0×12.6mm
2016年:23.4×13.0mm

症例②

【細胞診　所見】

★材料★

摘出された脳腫瘍

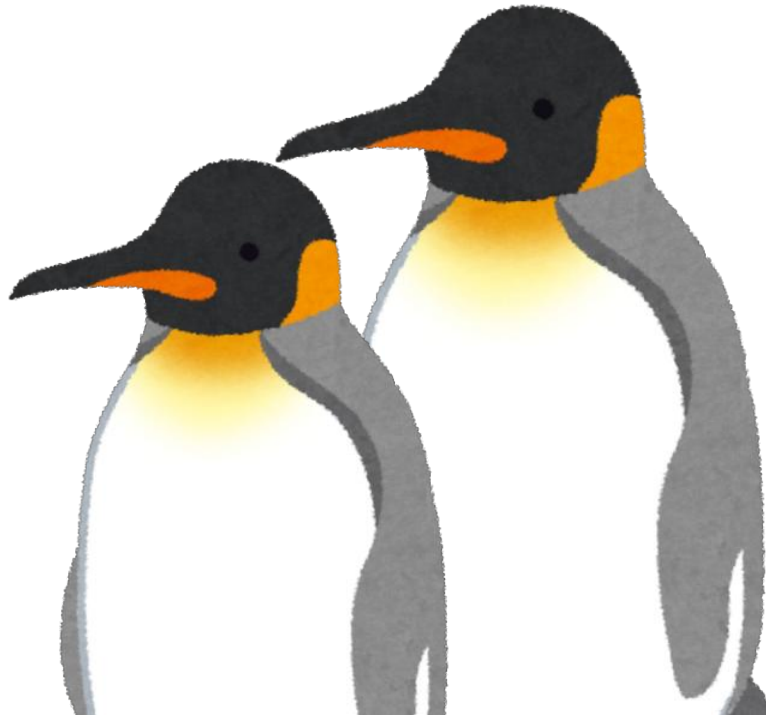
★標本★

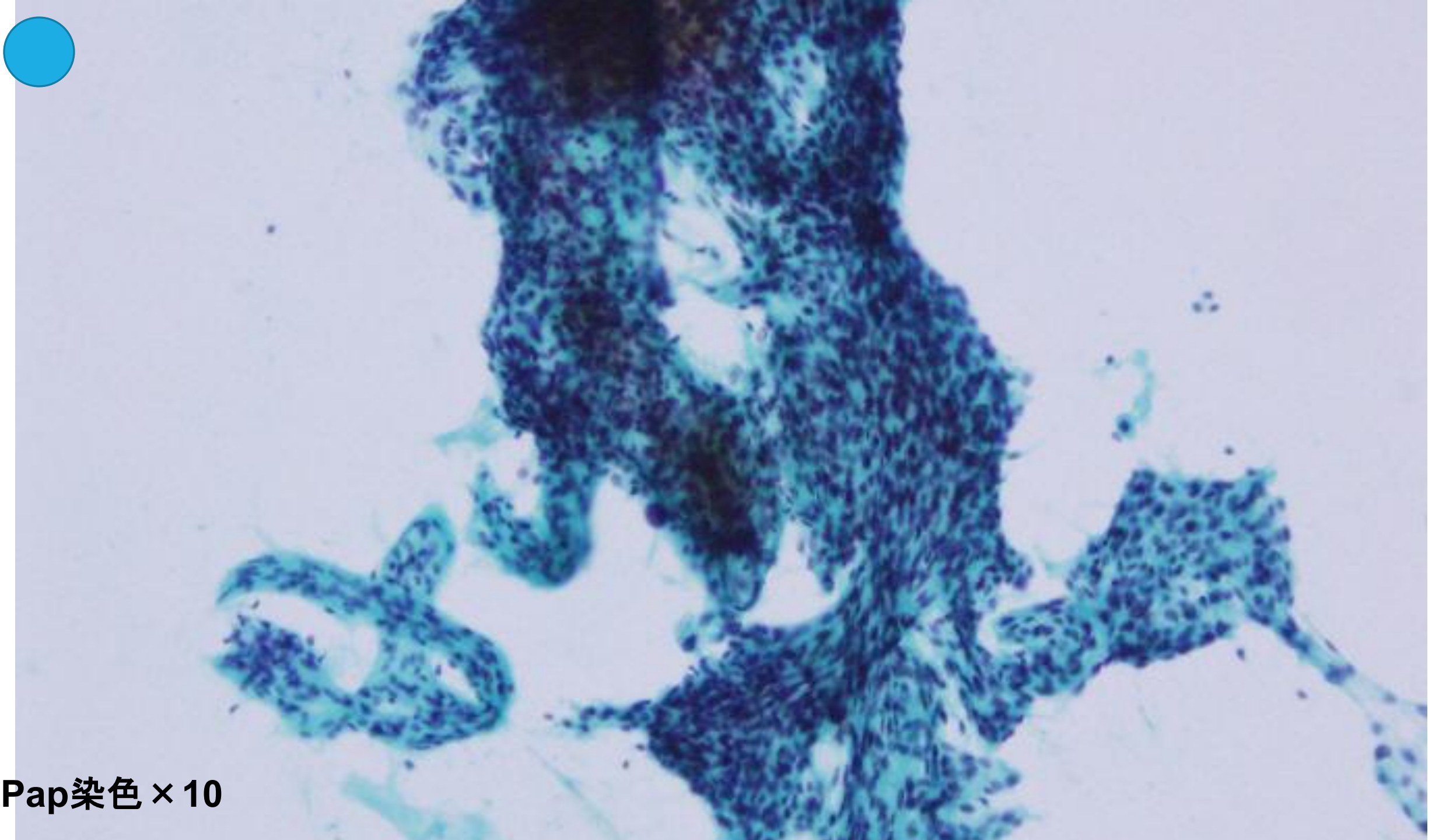
圧挫標本のＰａｐ染色とギムザ染色

ＬＢＣ標本のＰａｐ染色

症例②

圧挫標本　パパニコロウ染色





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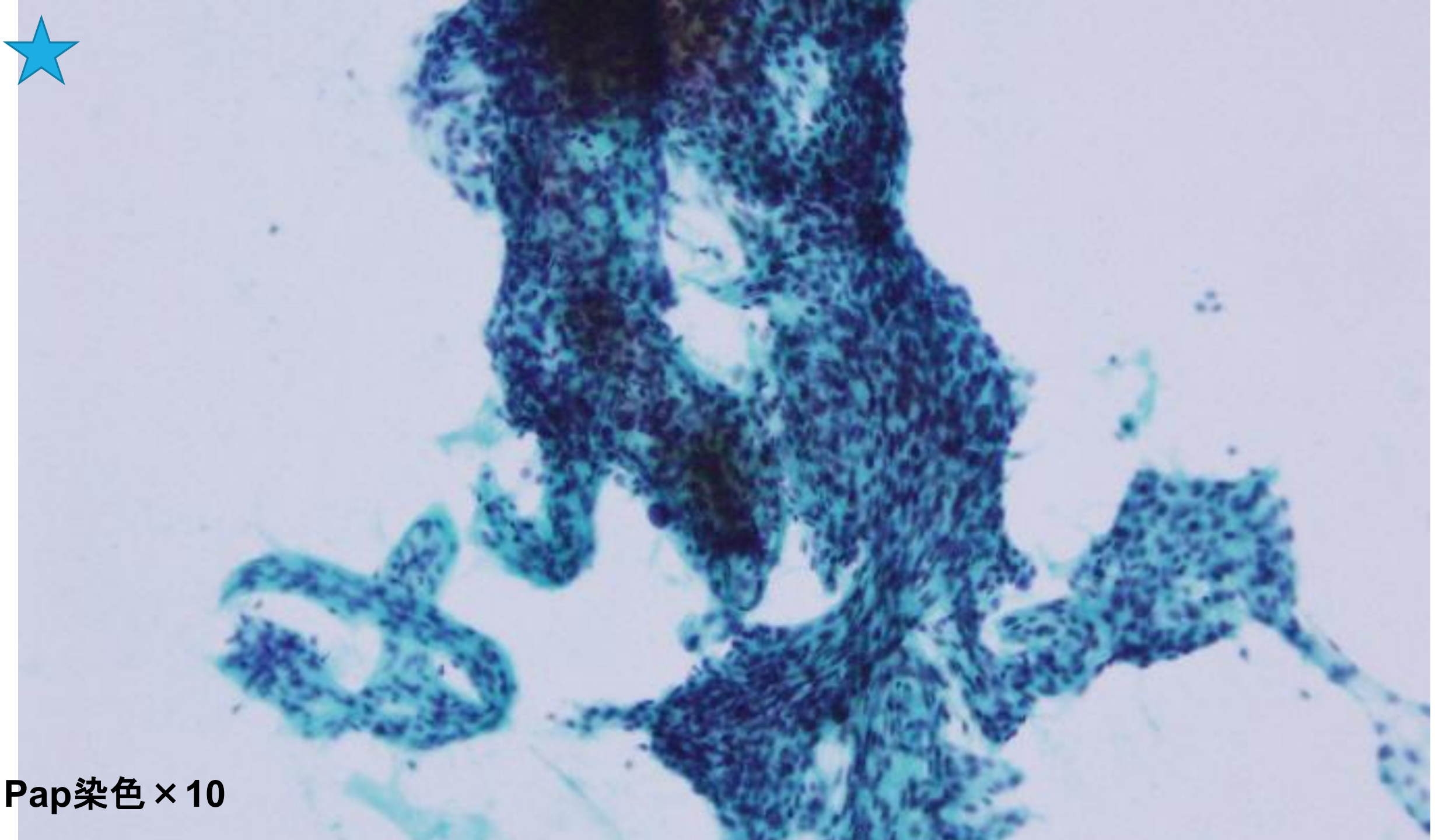

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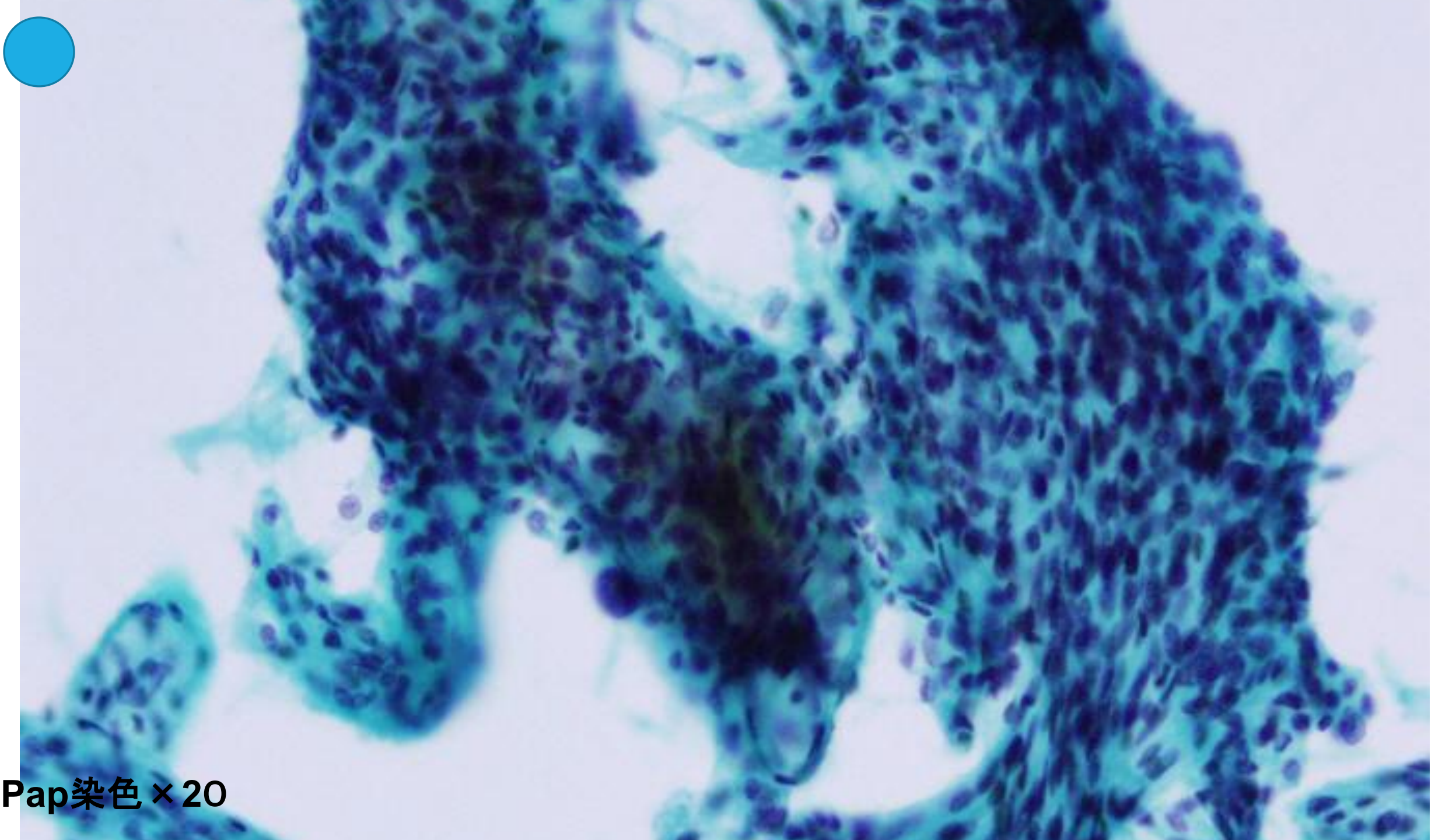

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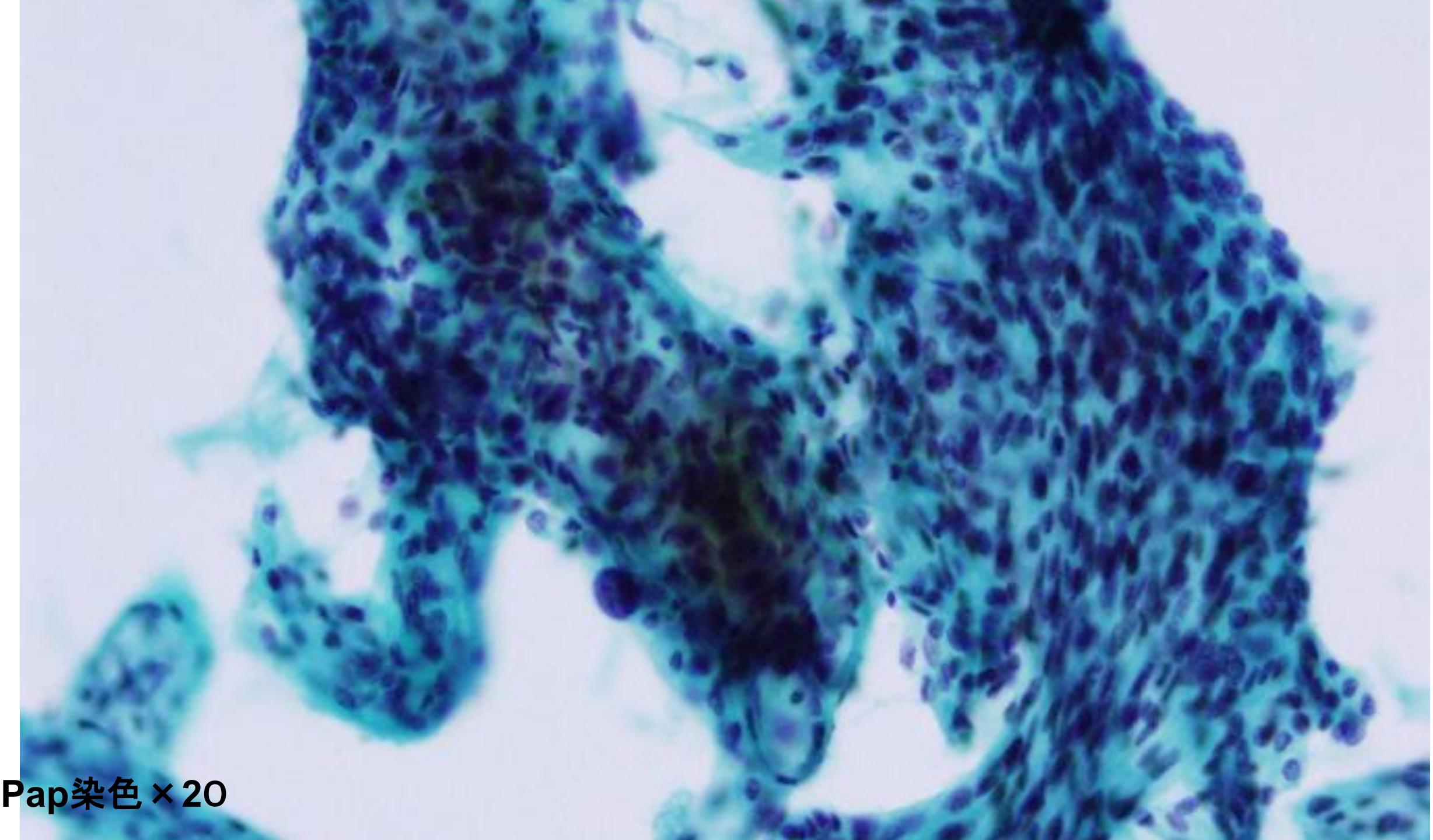

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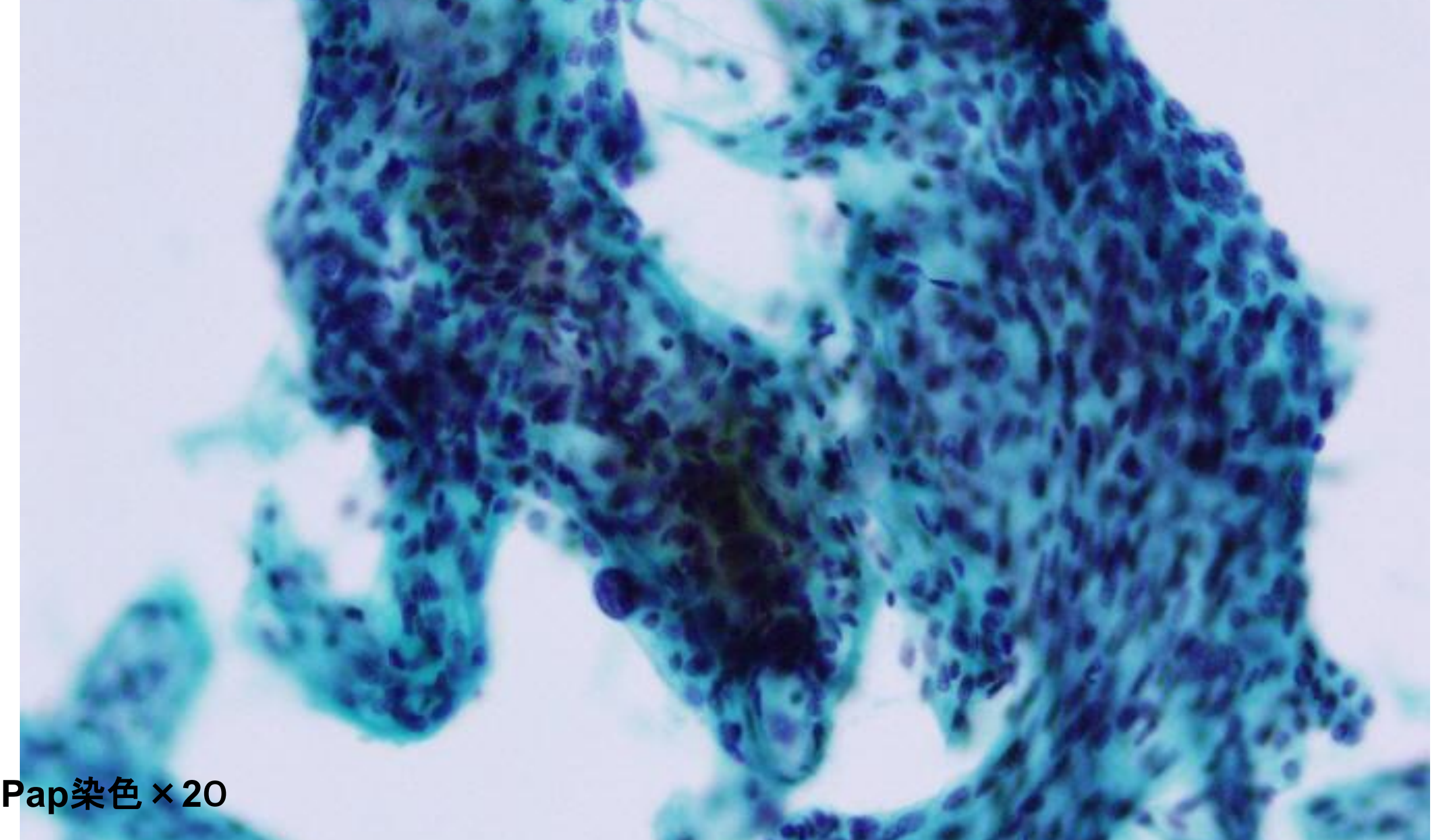

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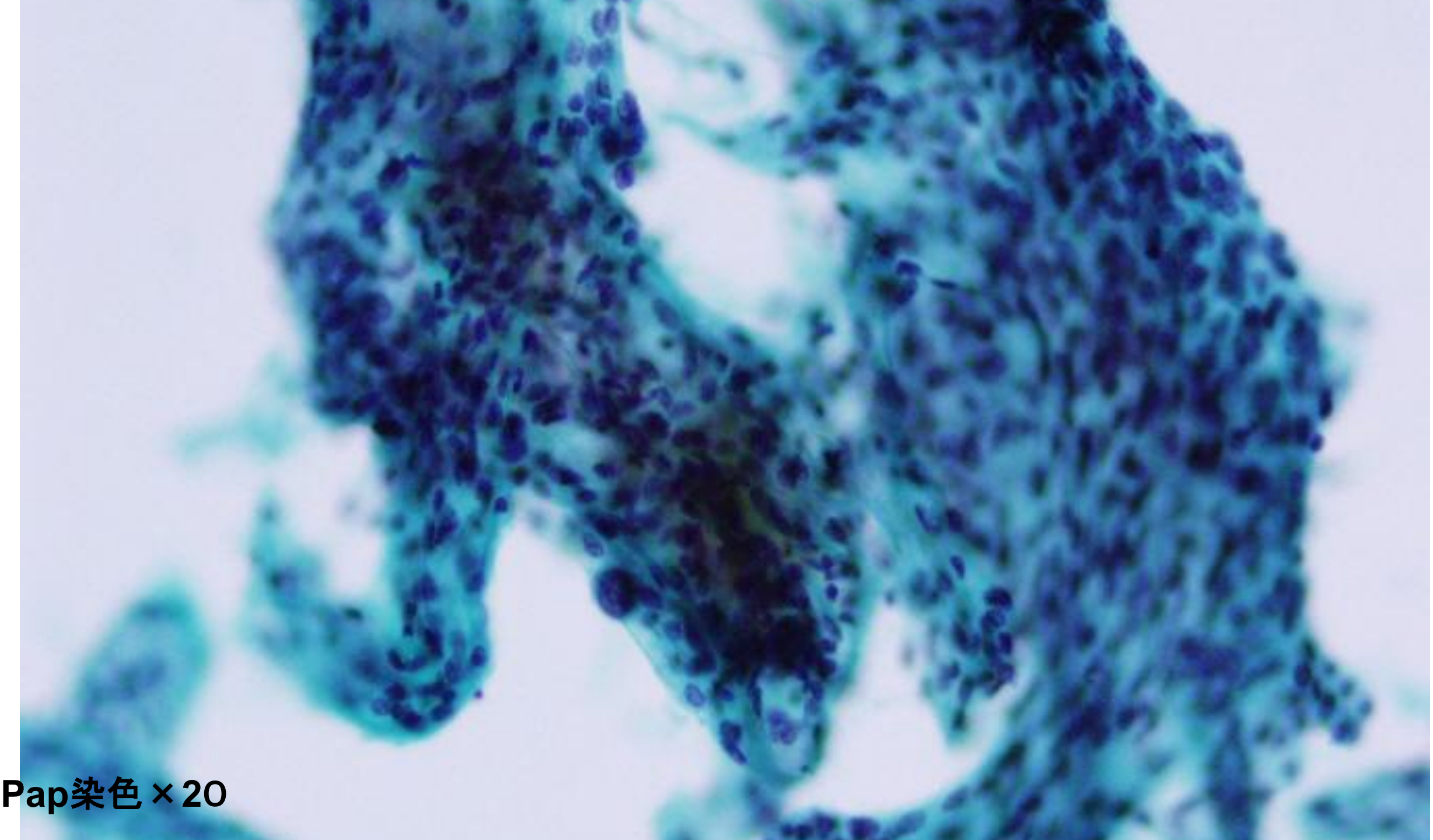

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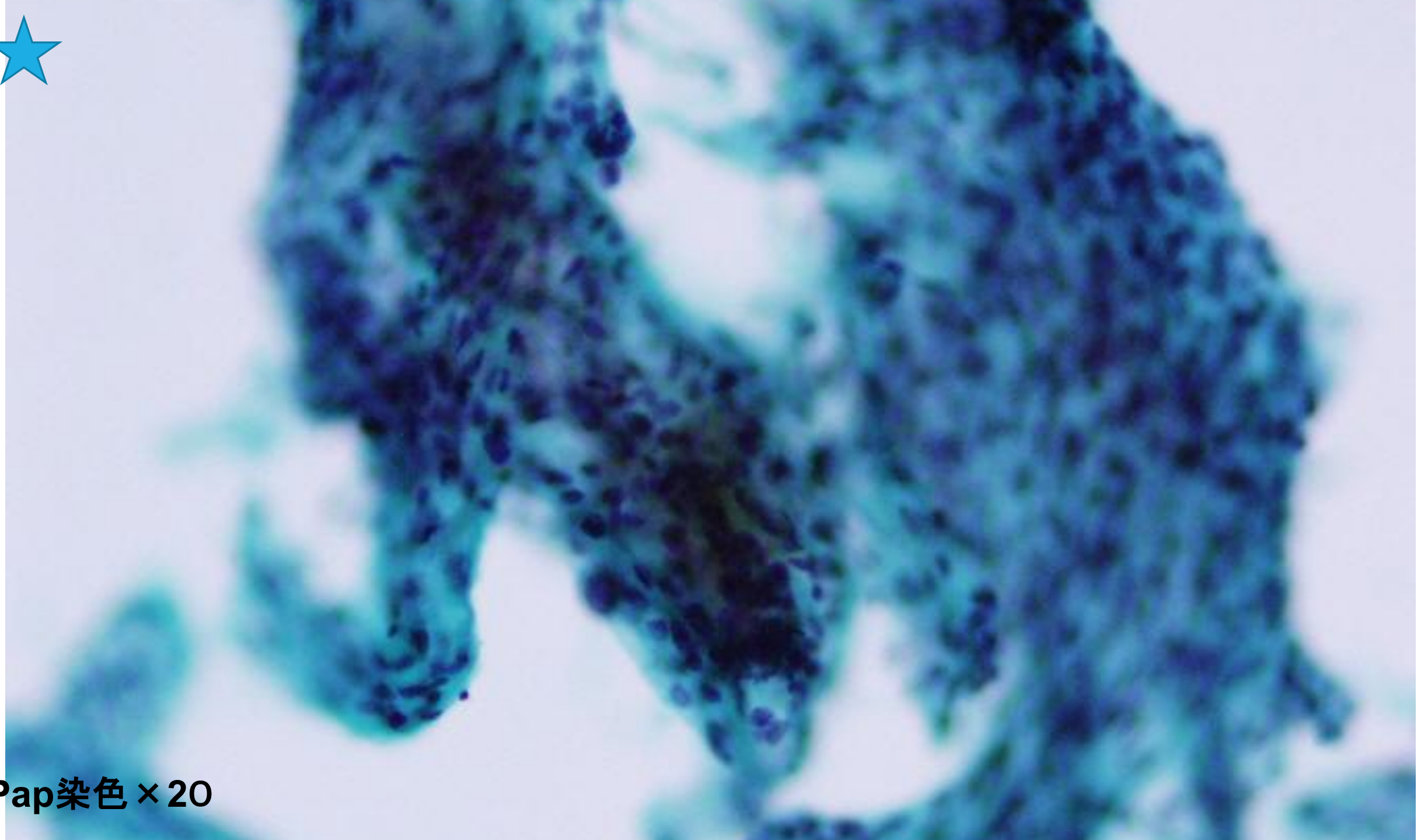

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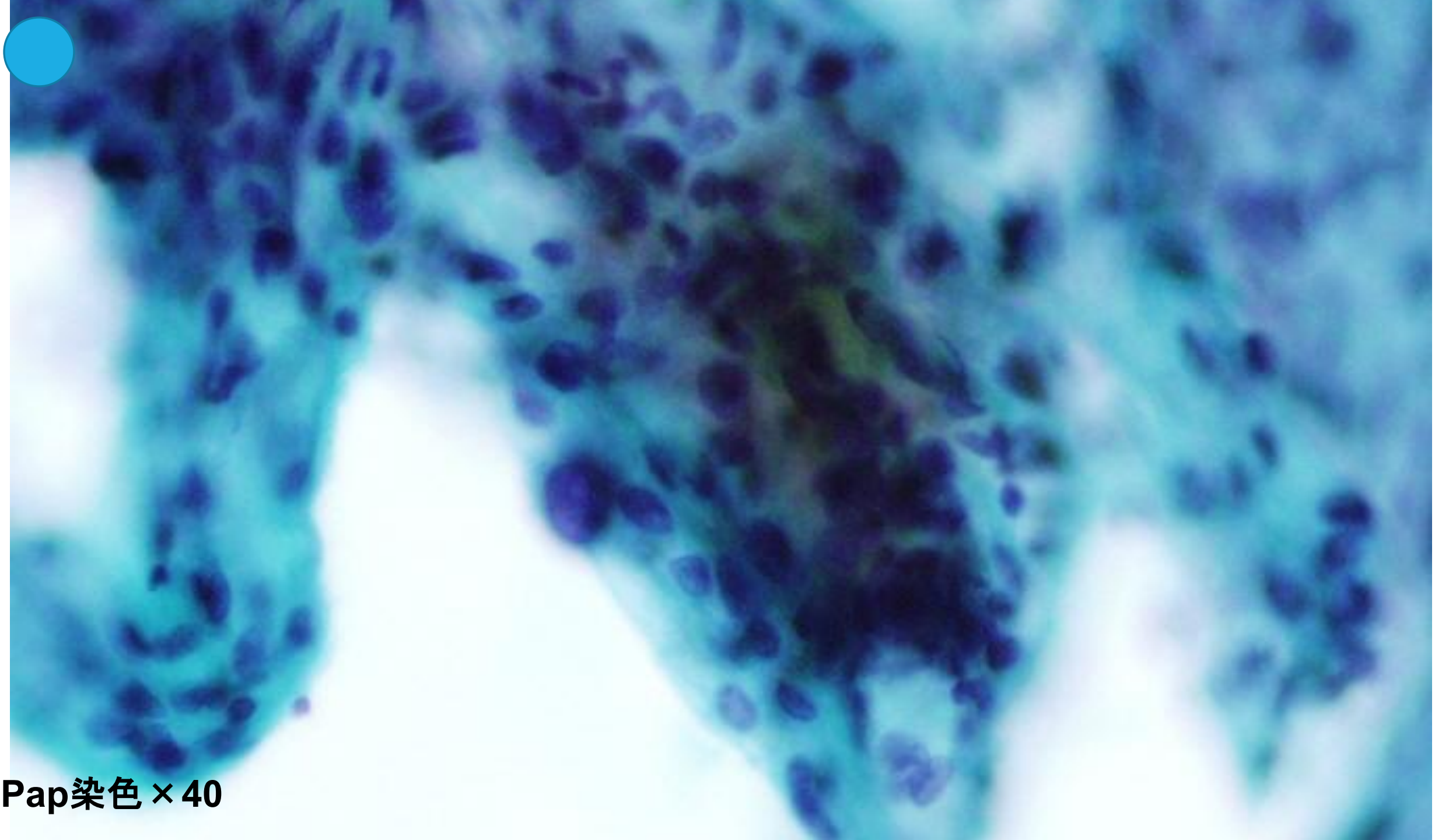

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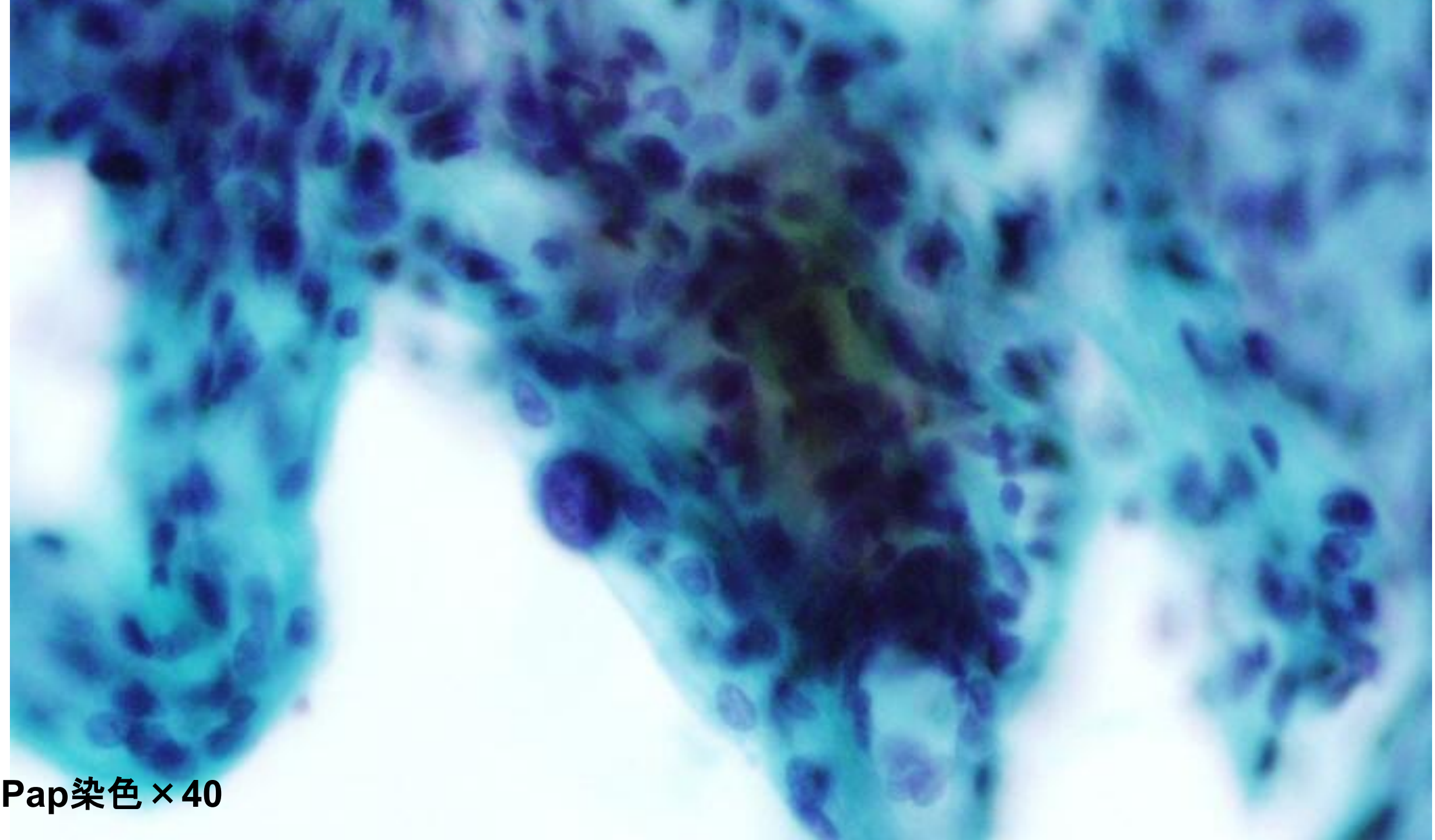

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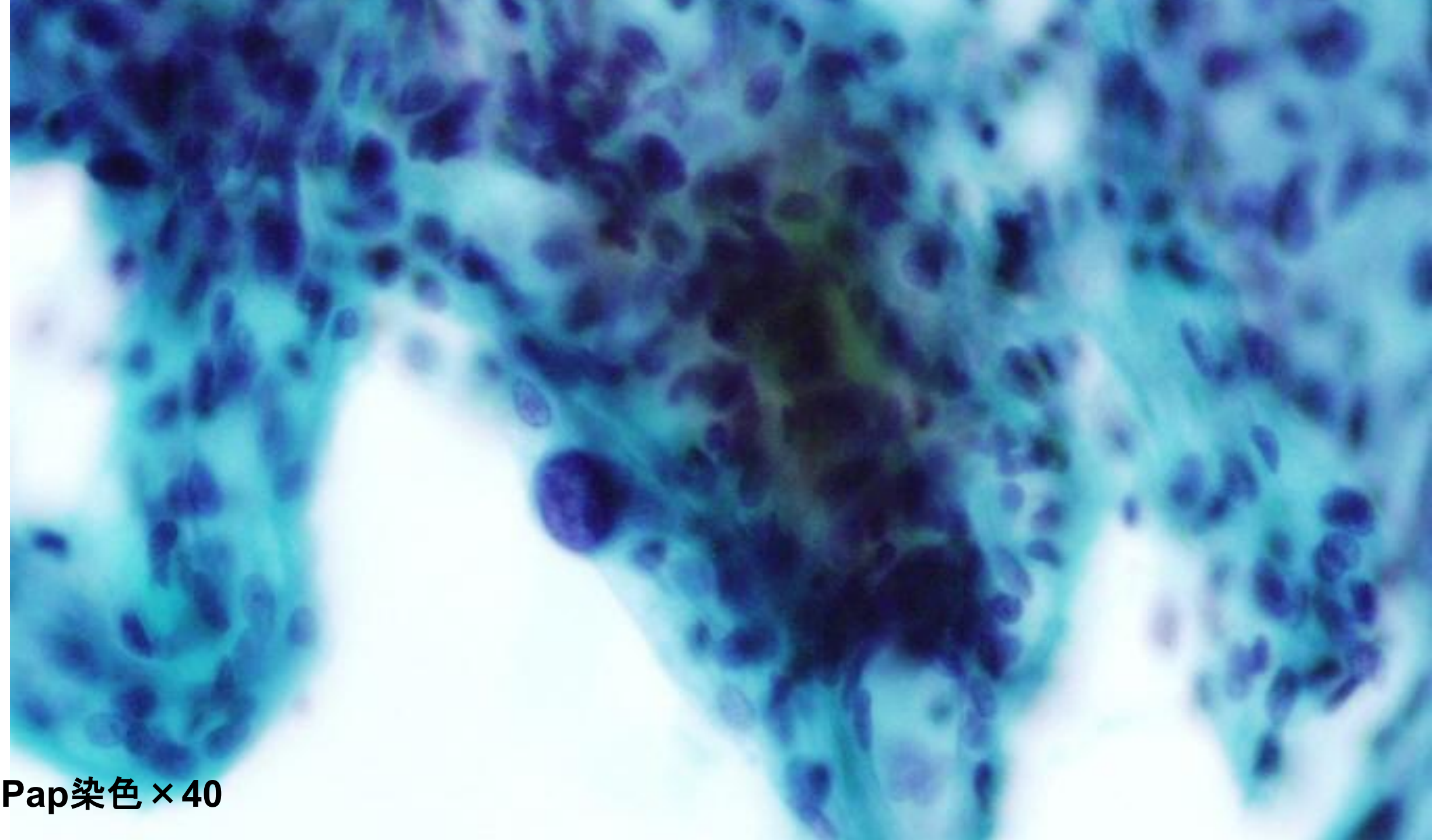

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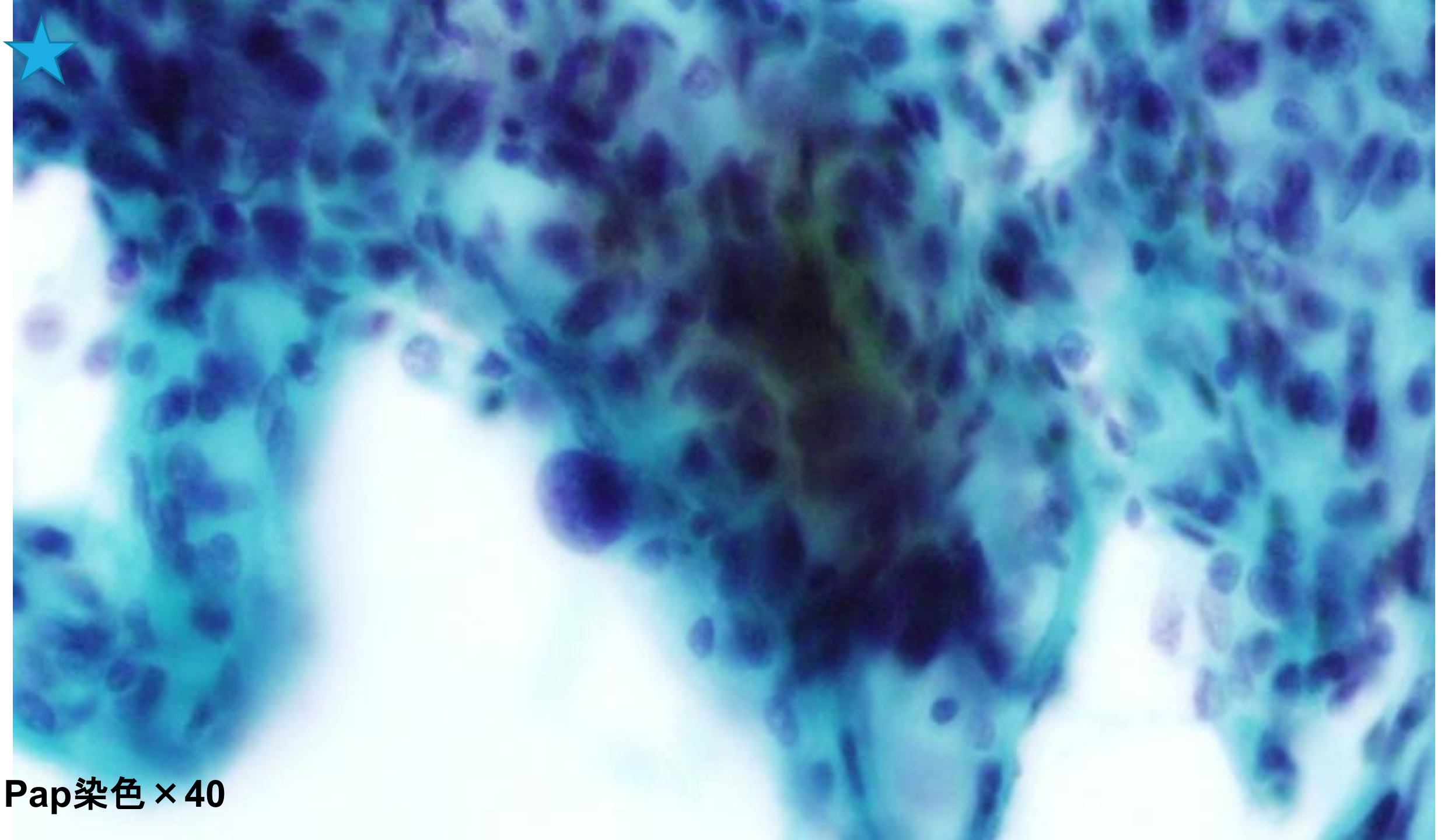

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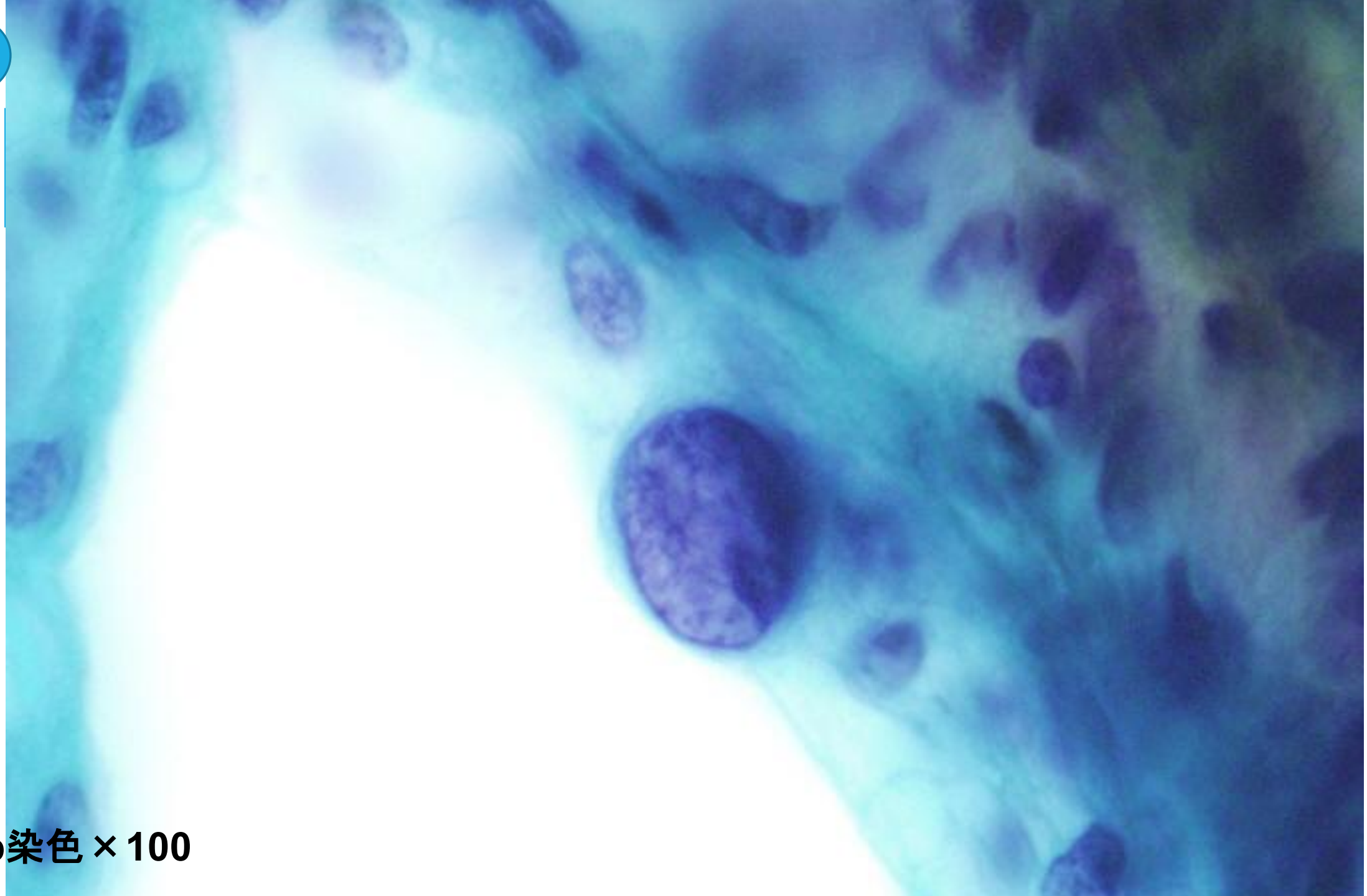

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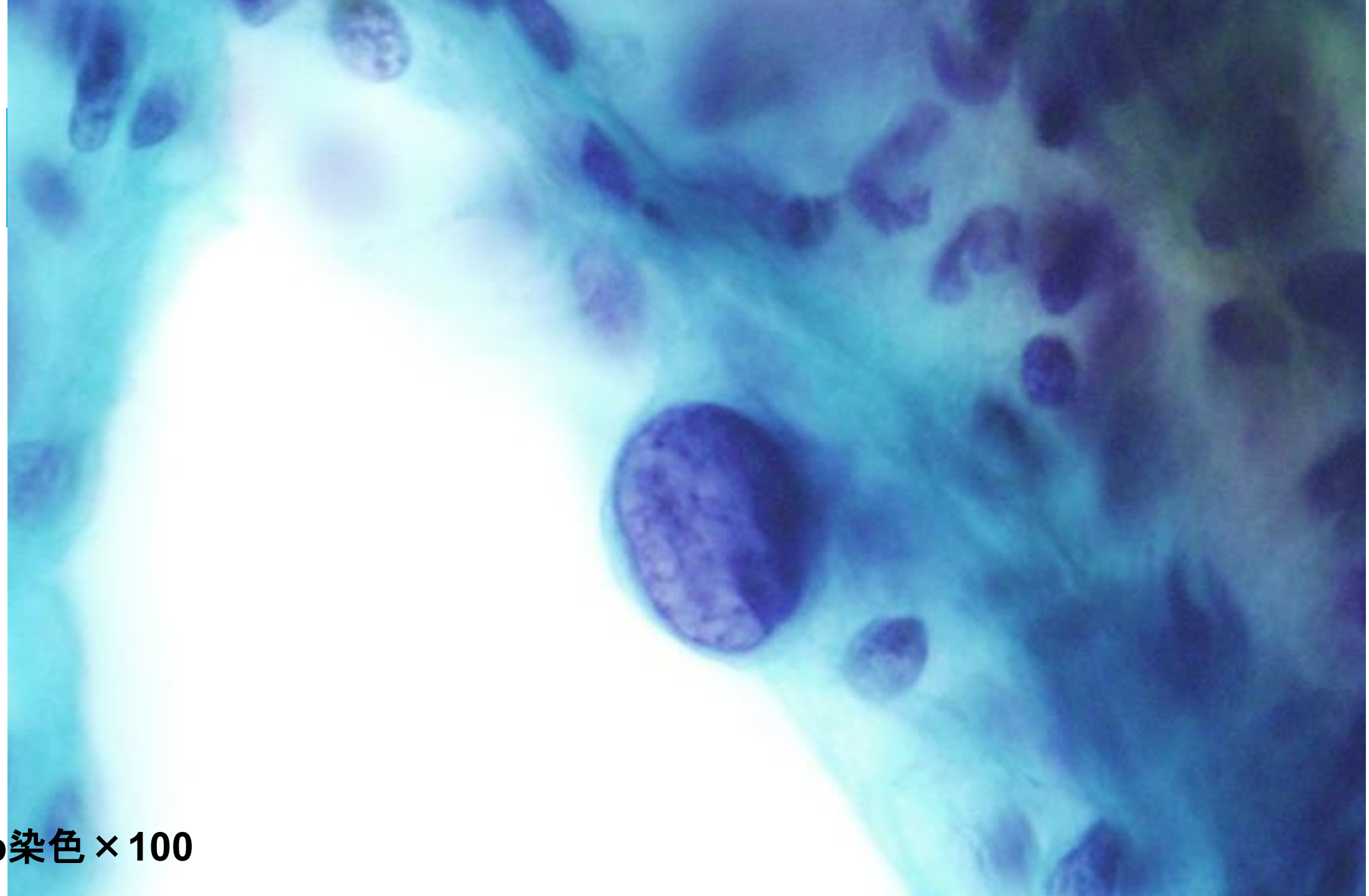

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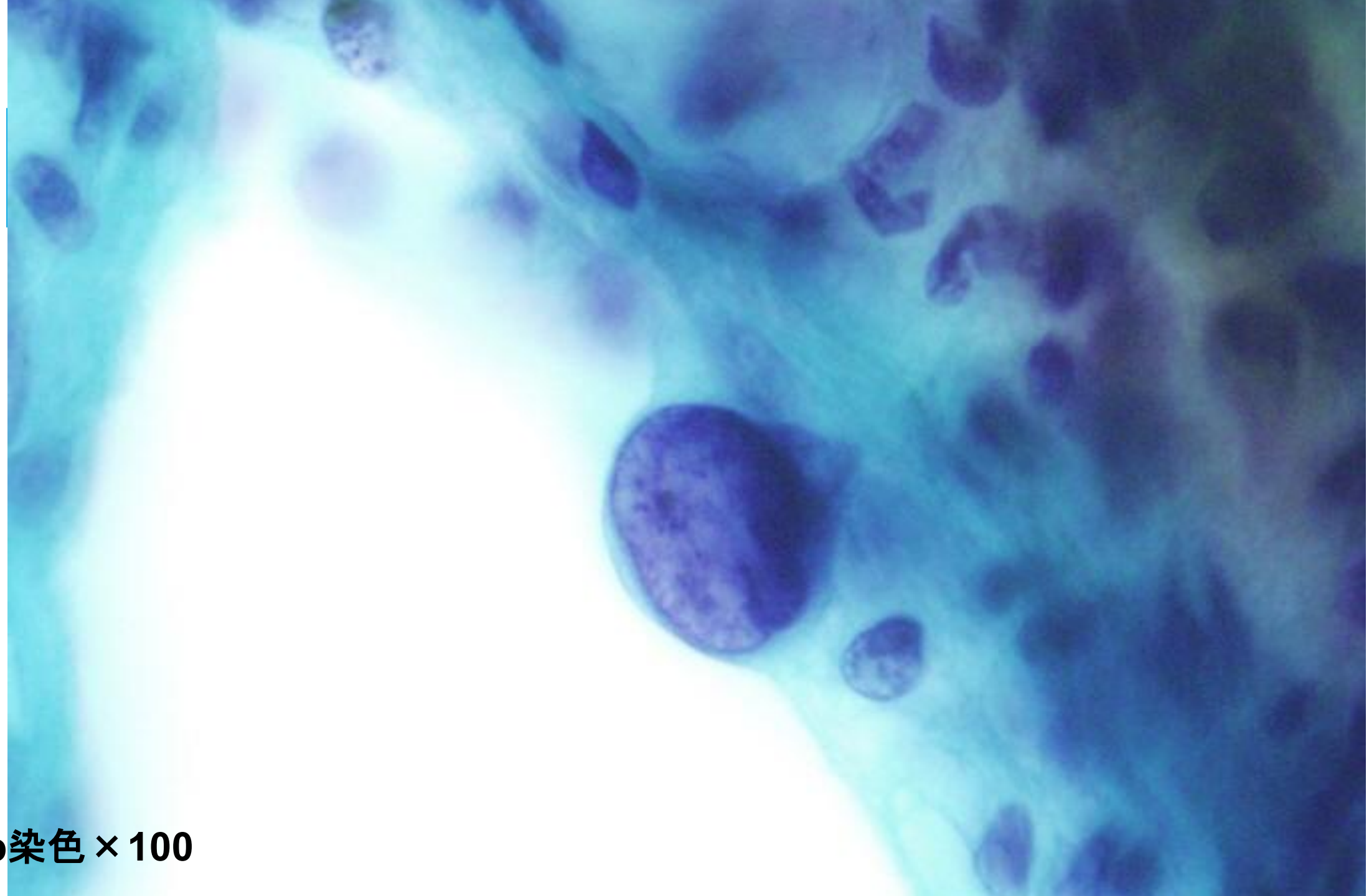

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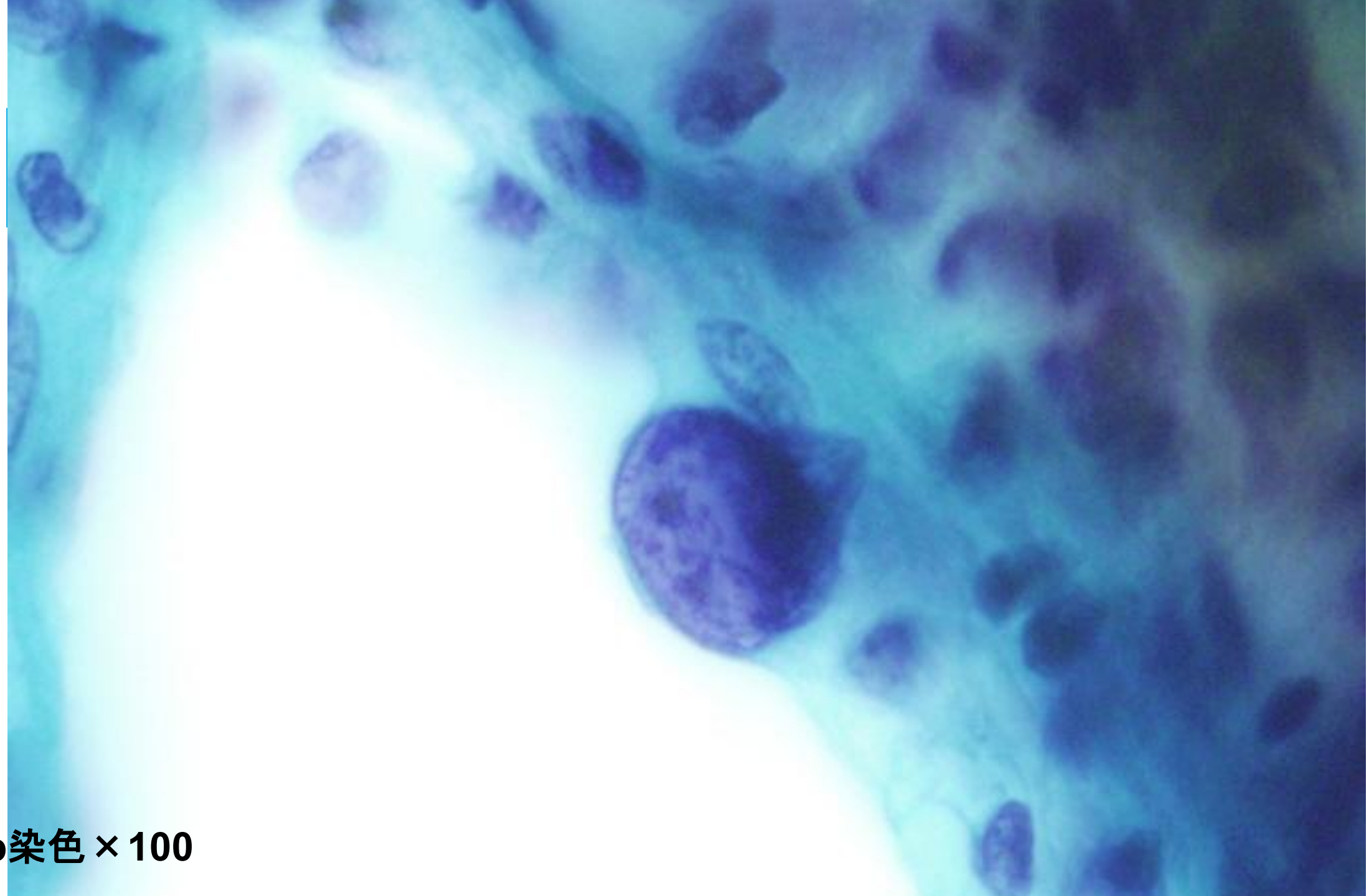

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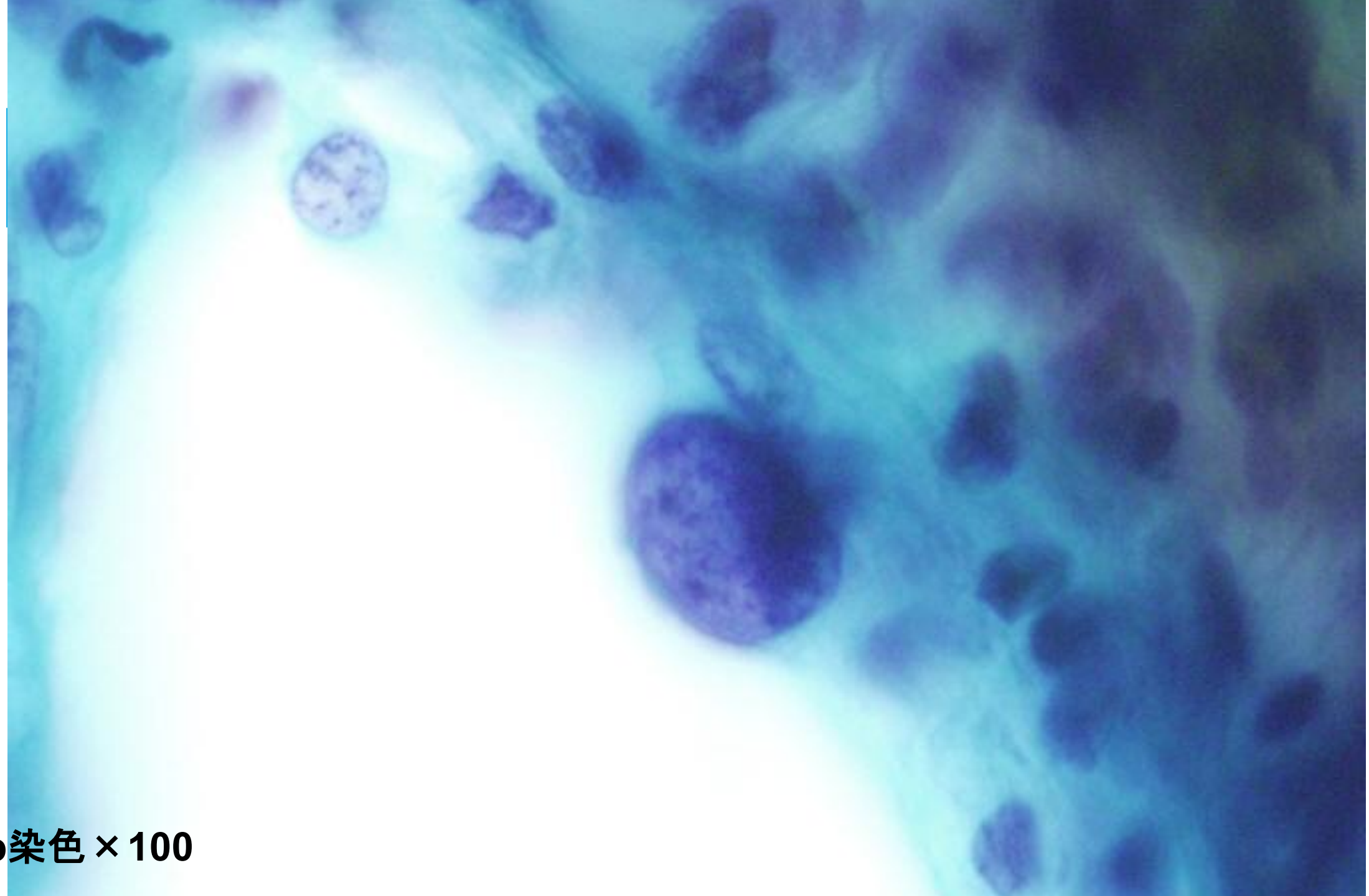

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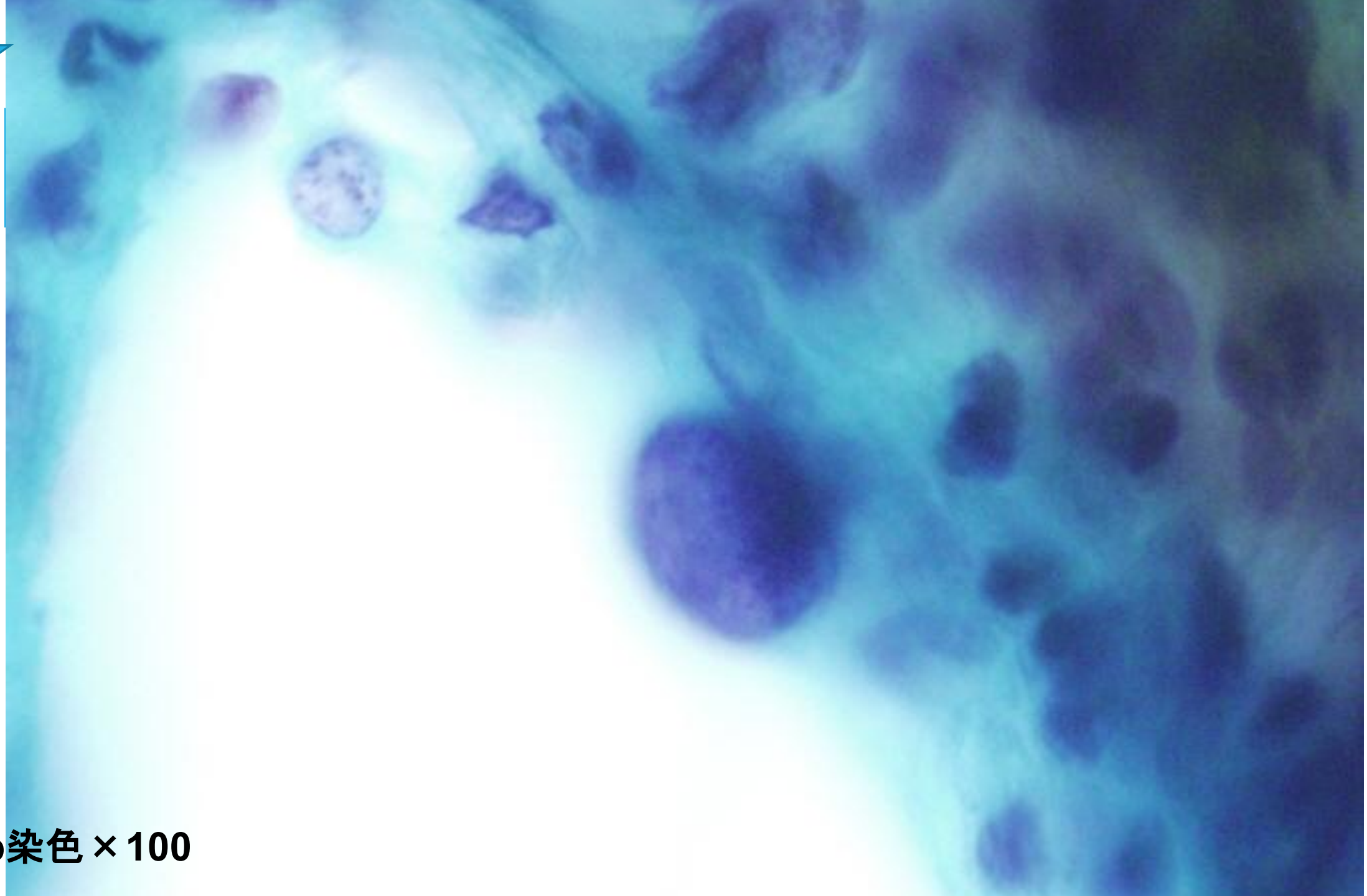

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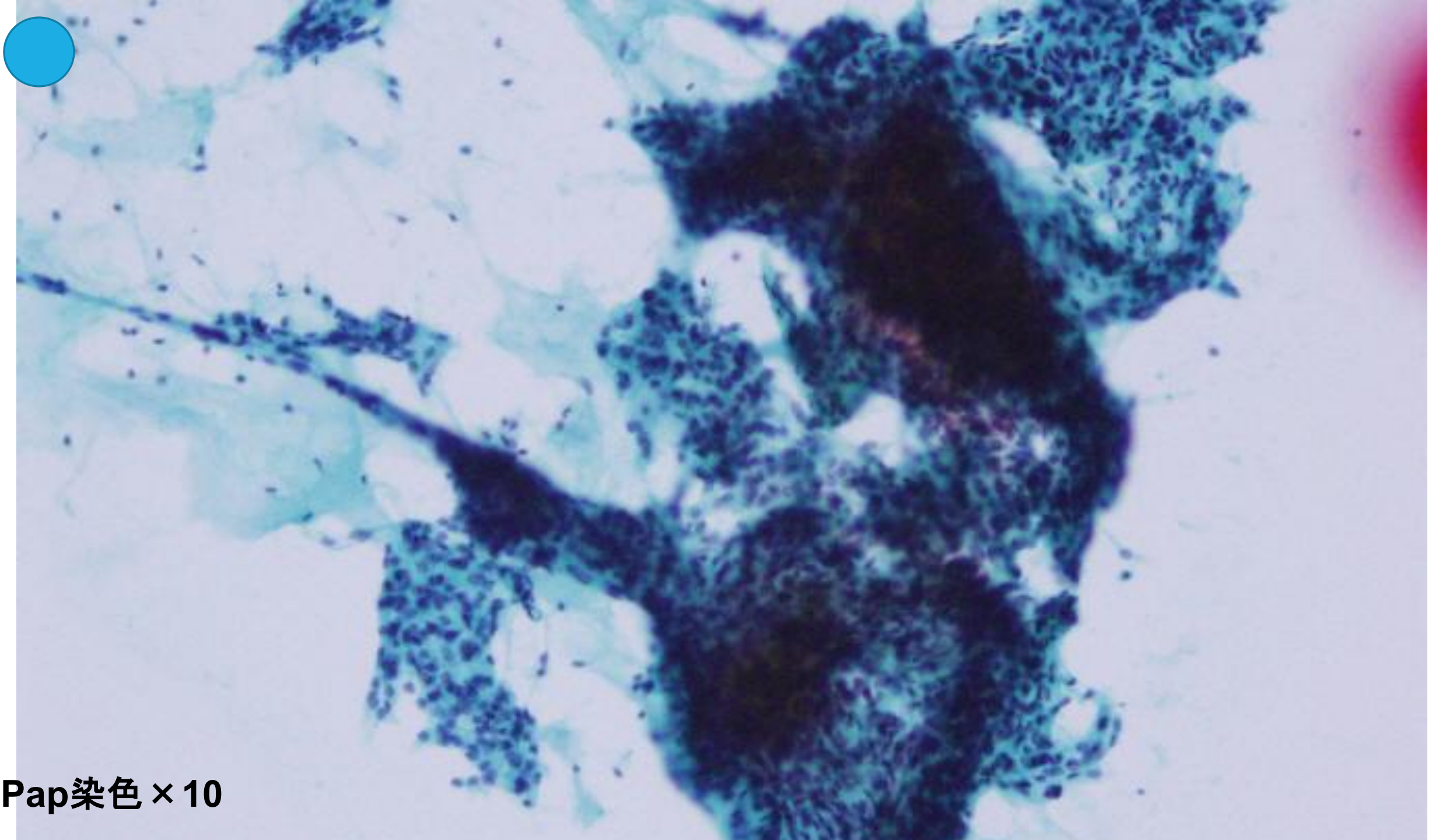

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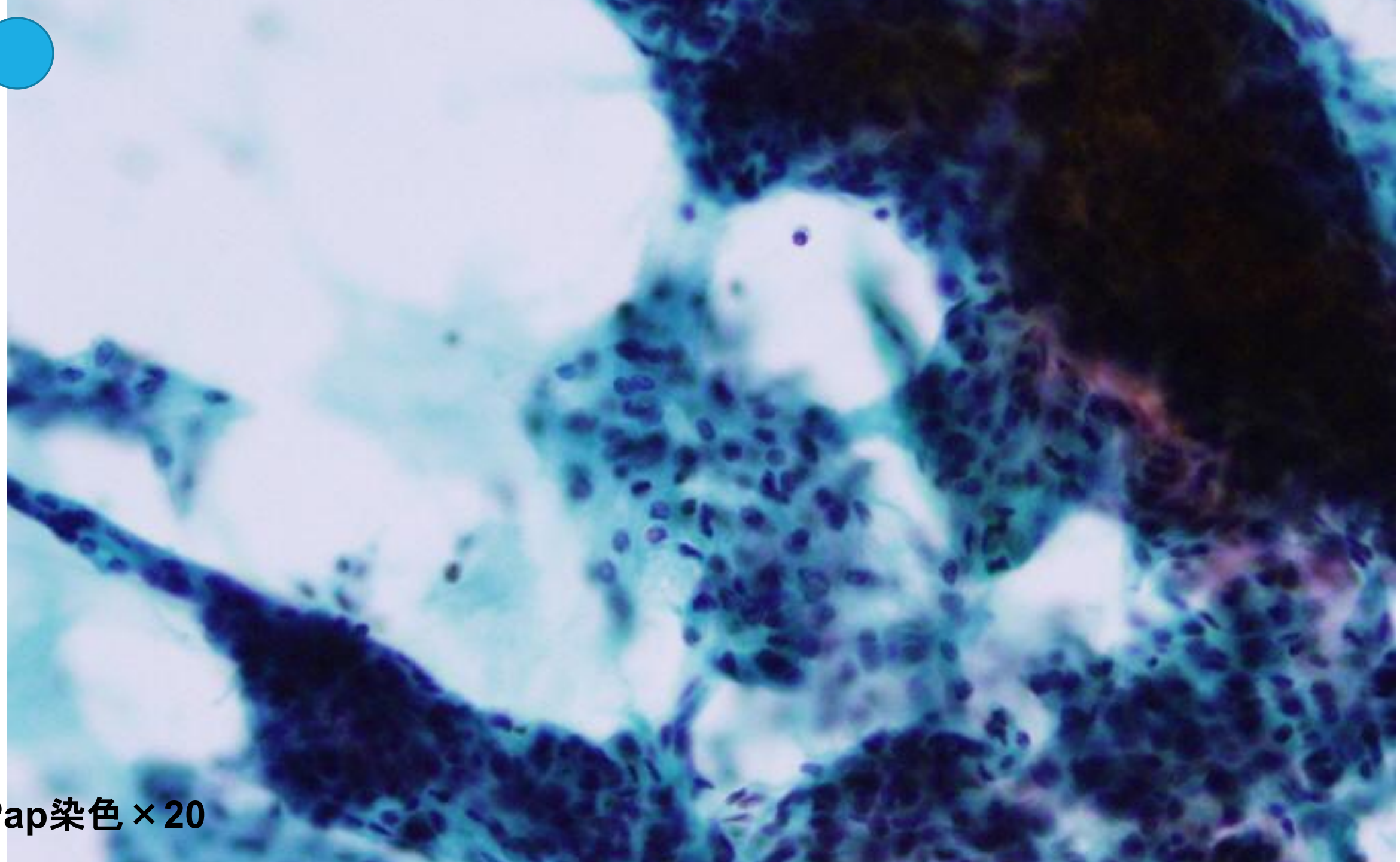

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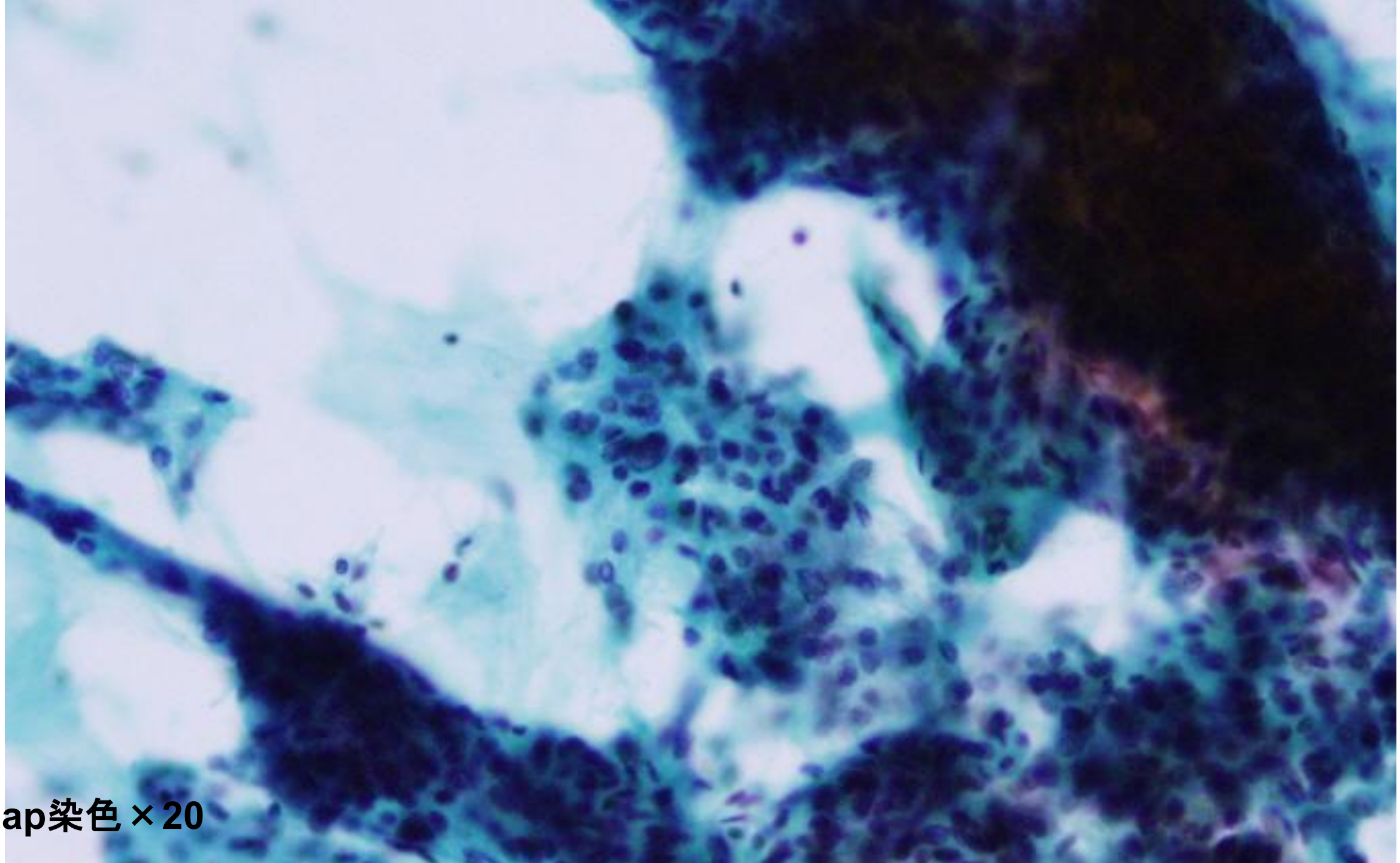

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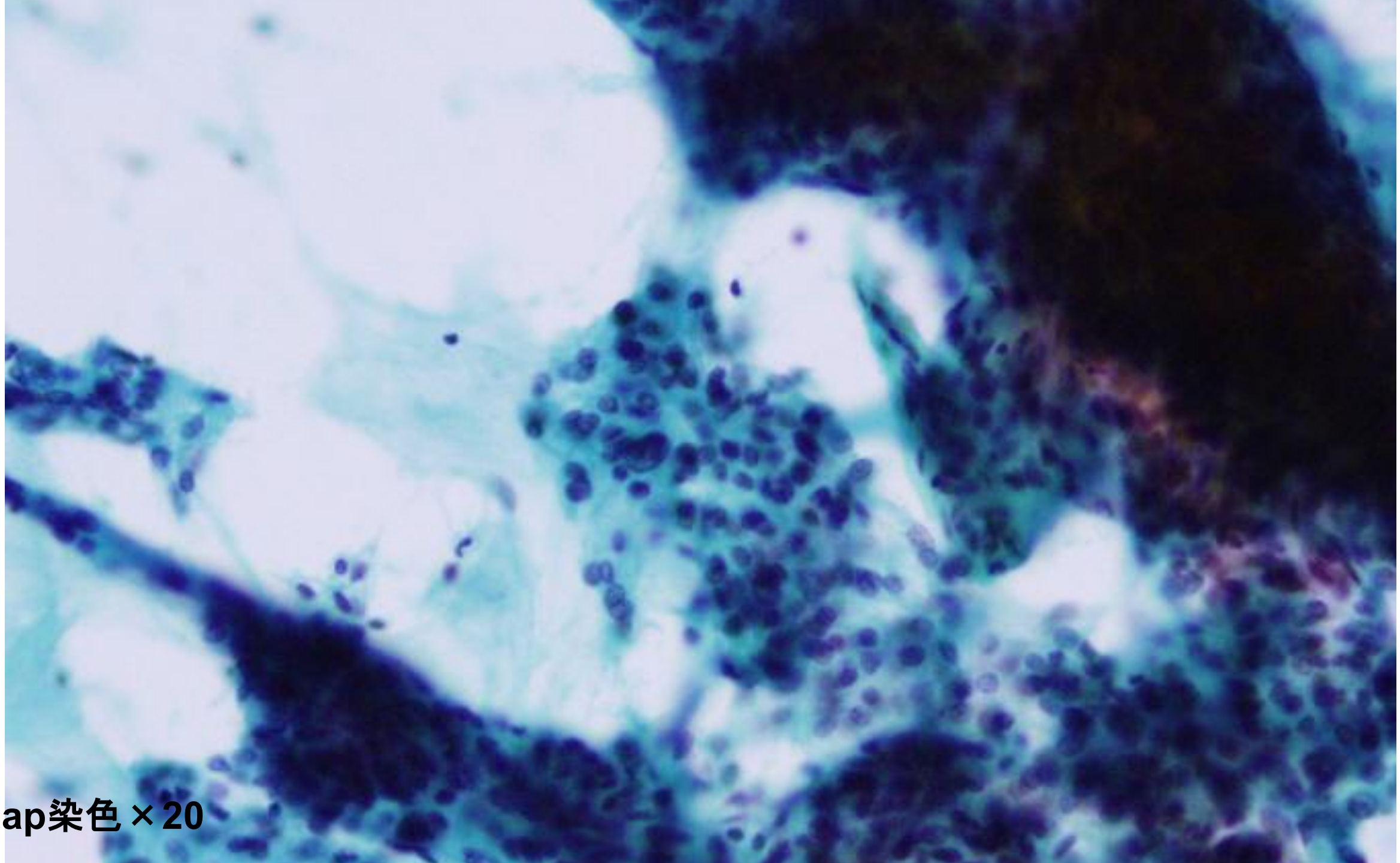

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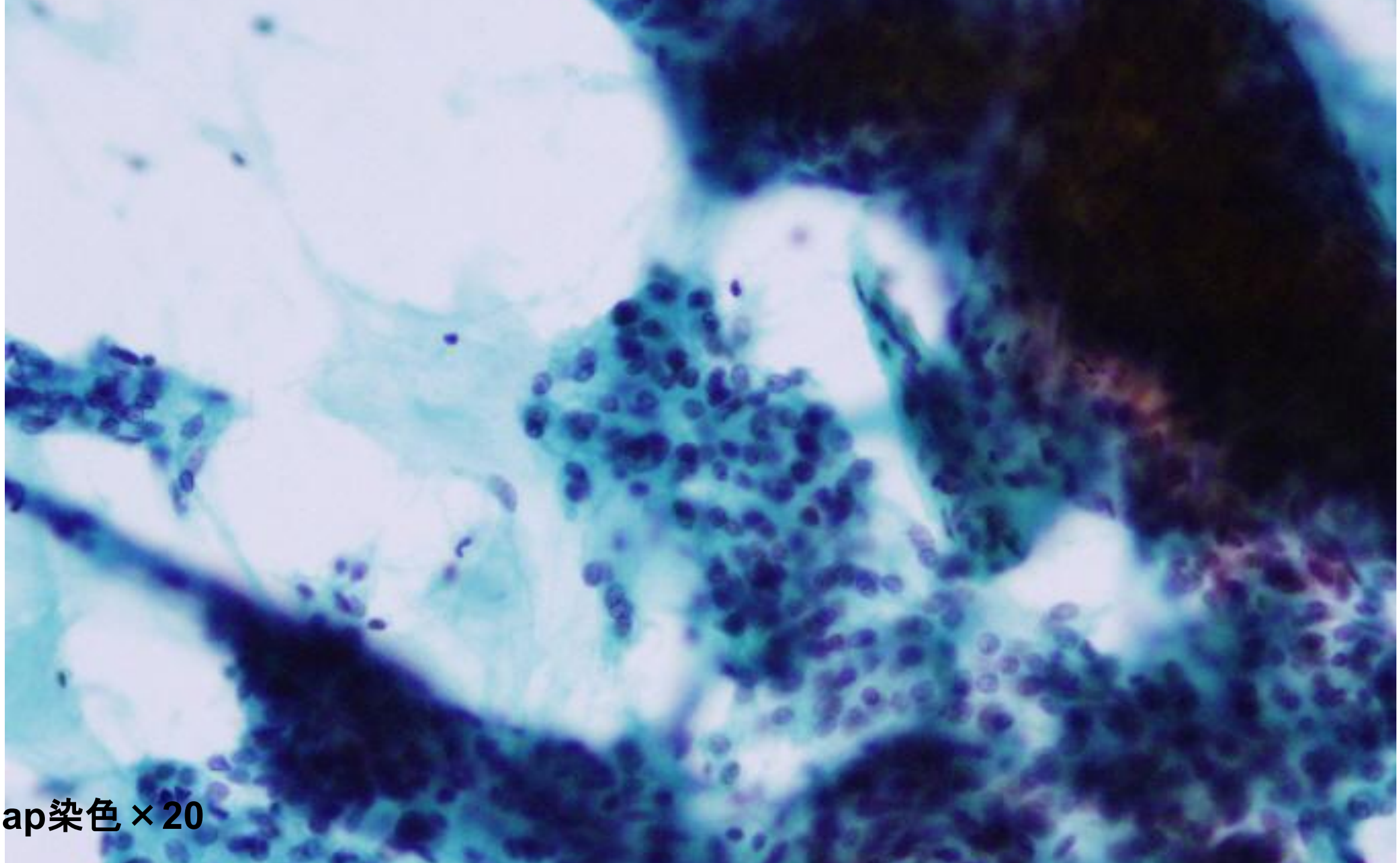

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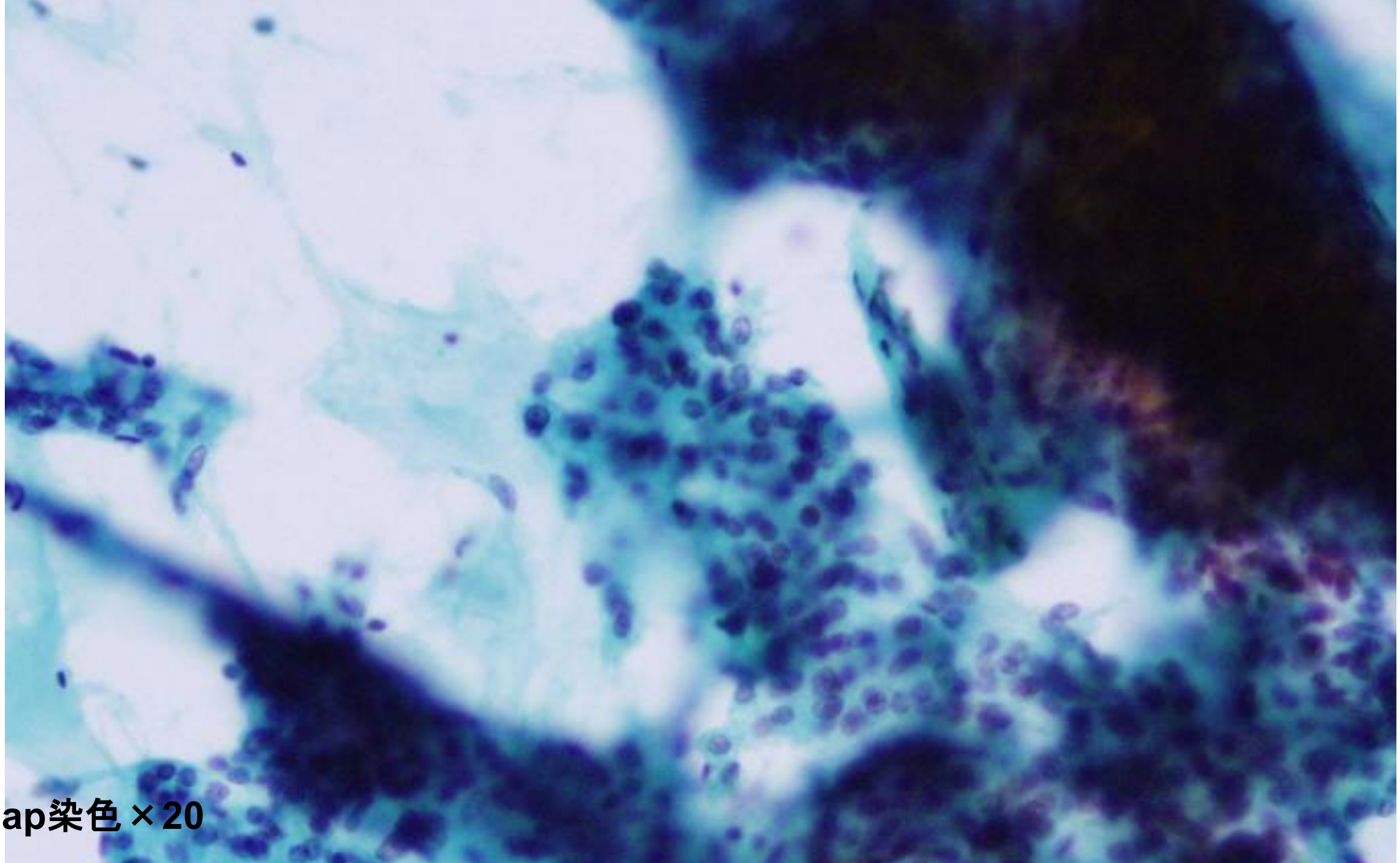

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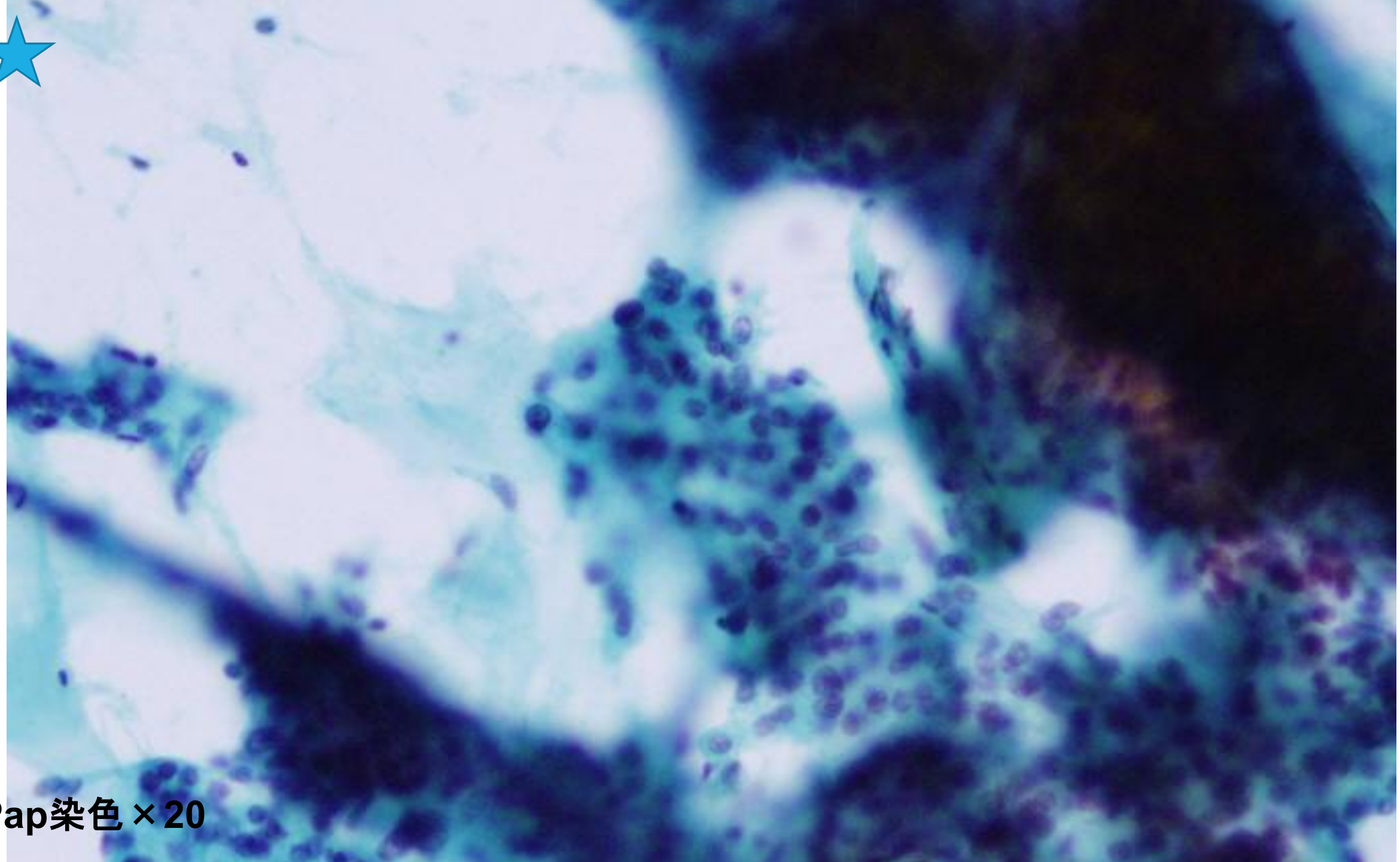

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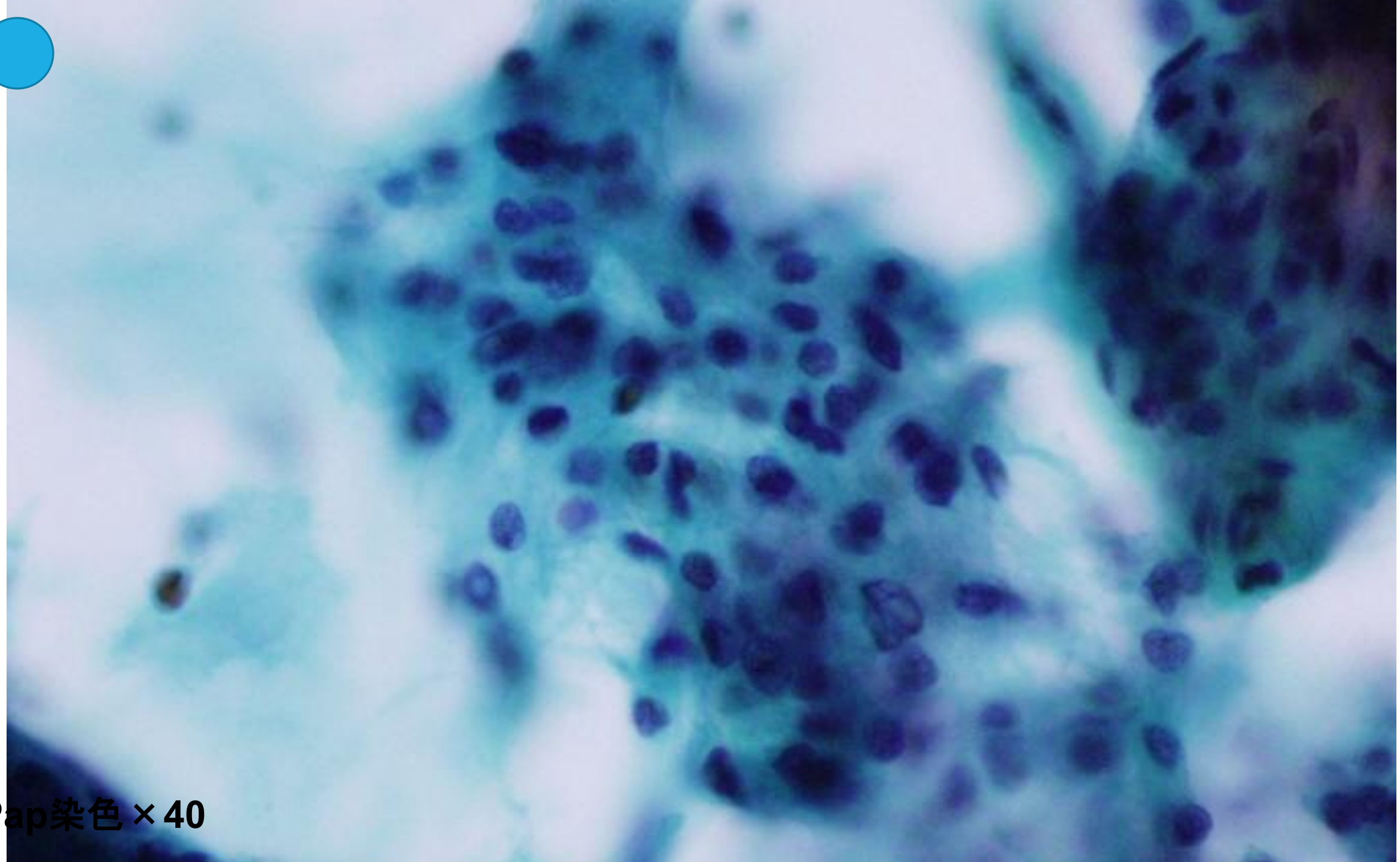

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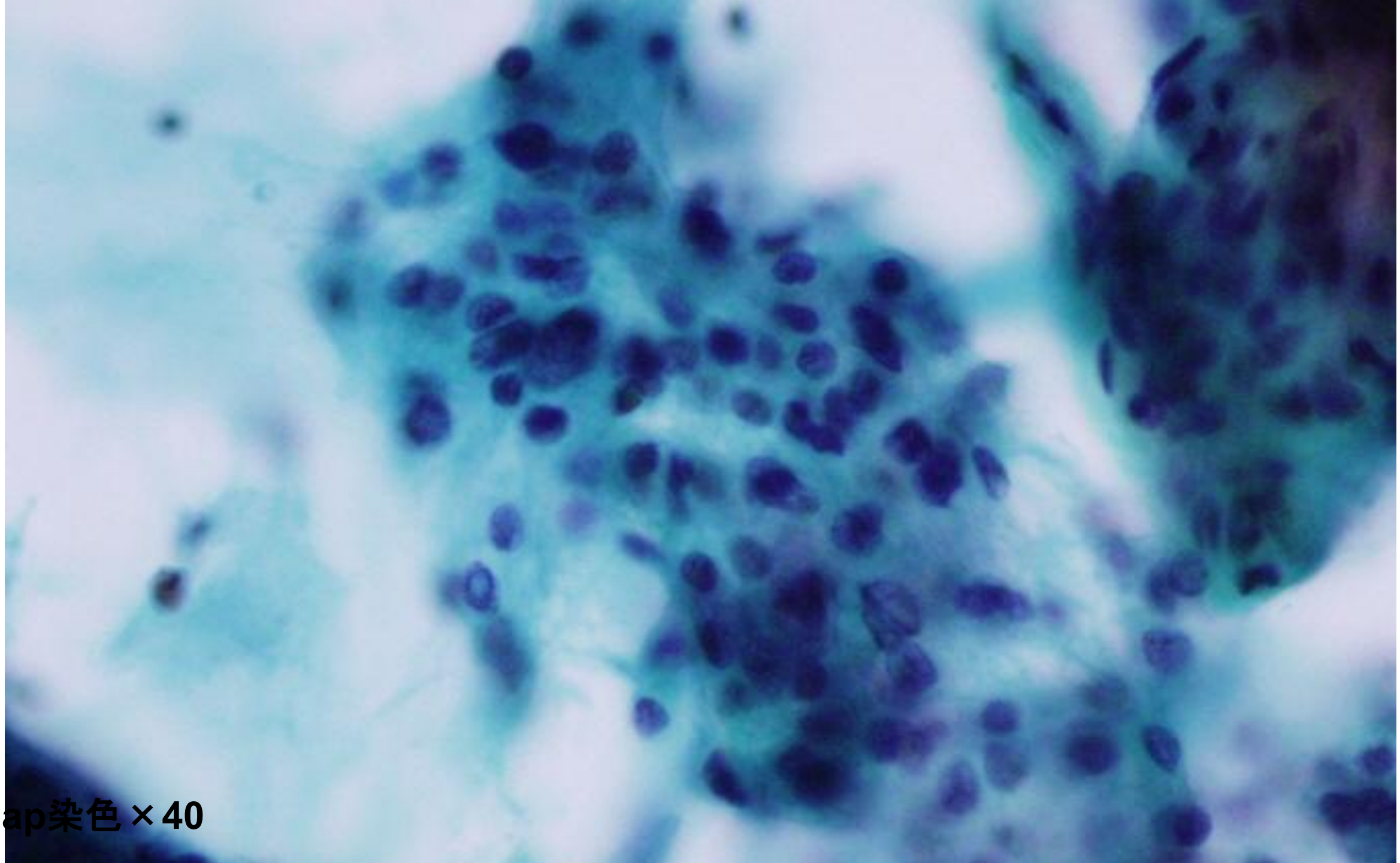

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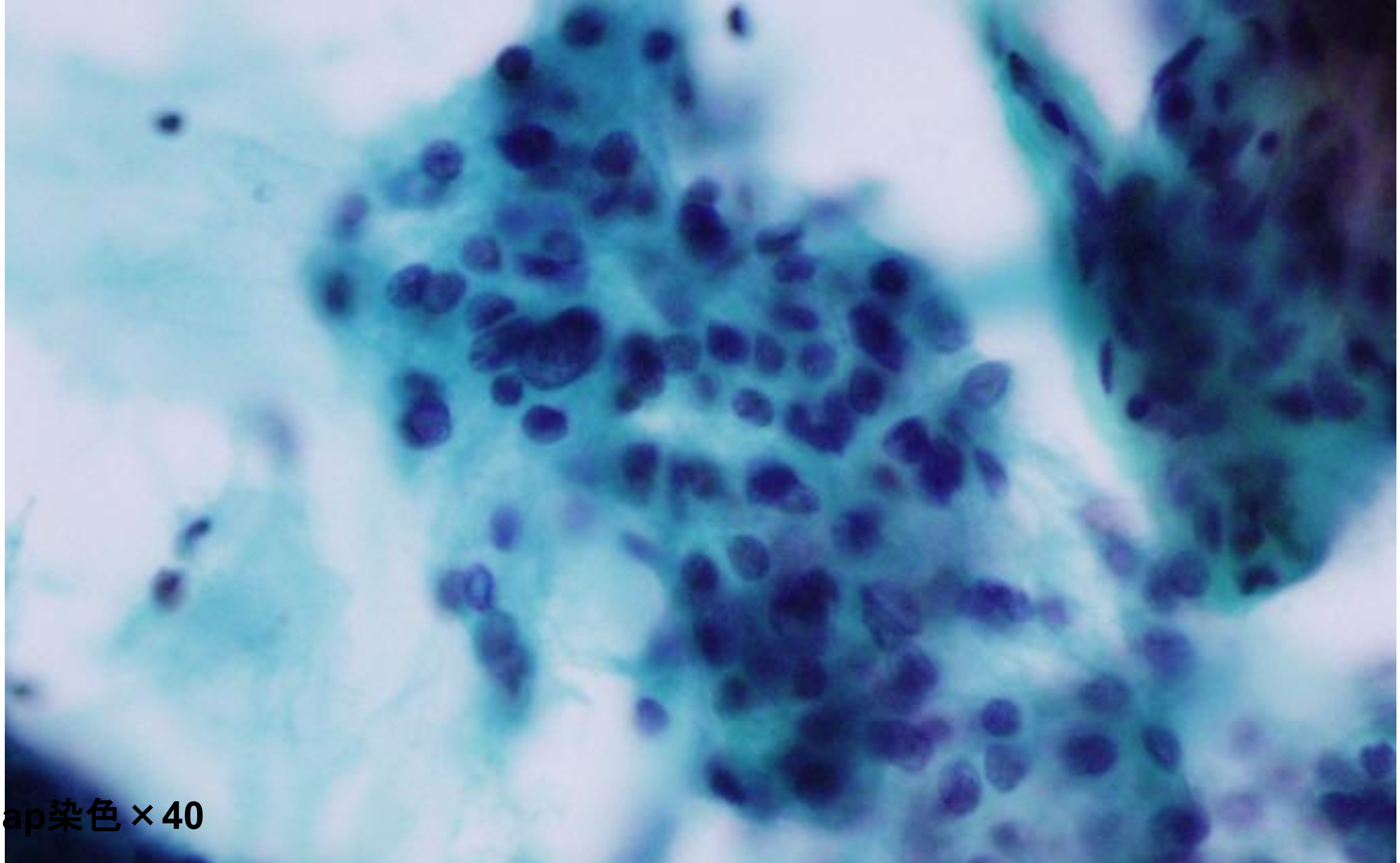

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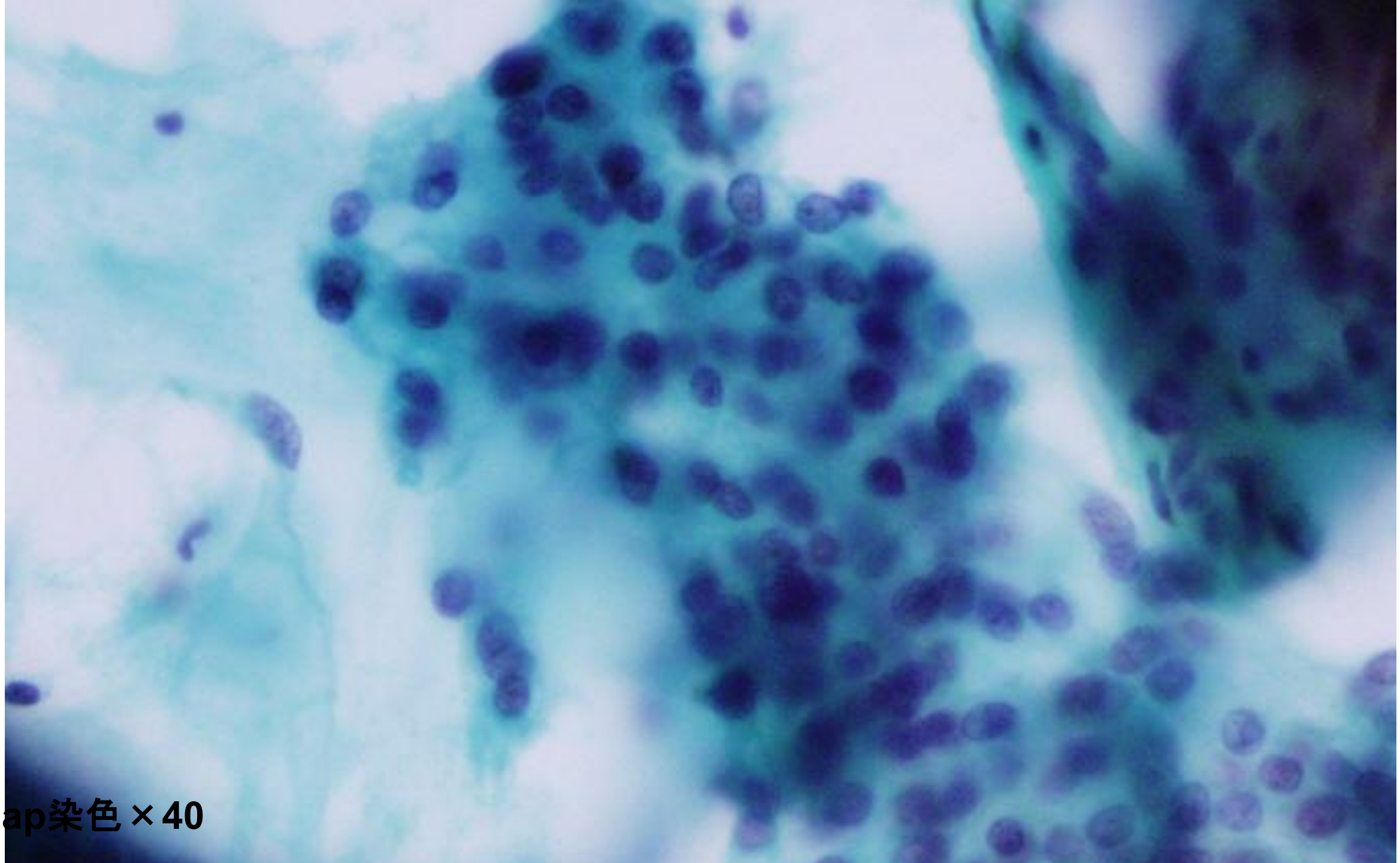

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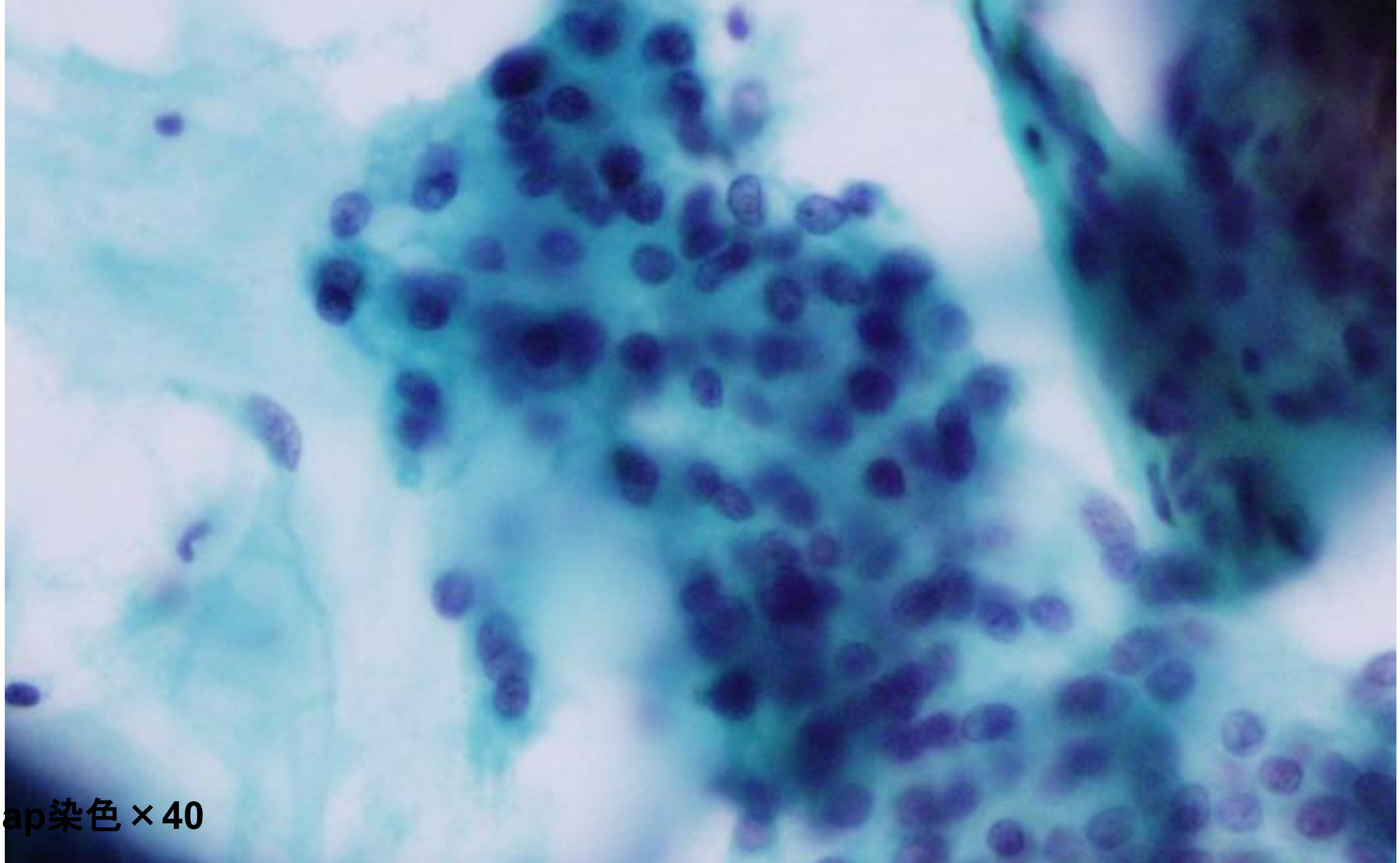

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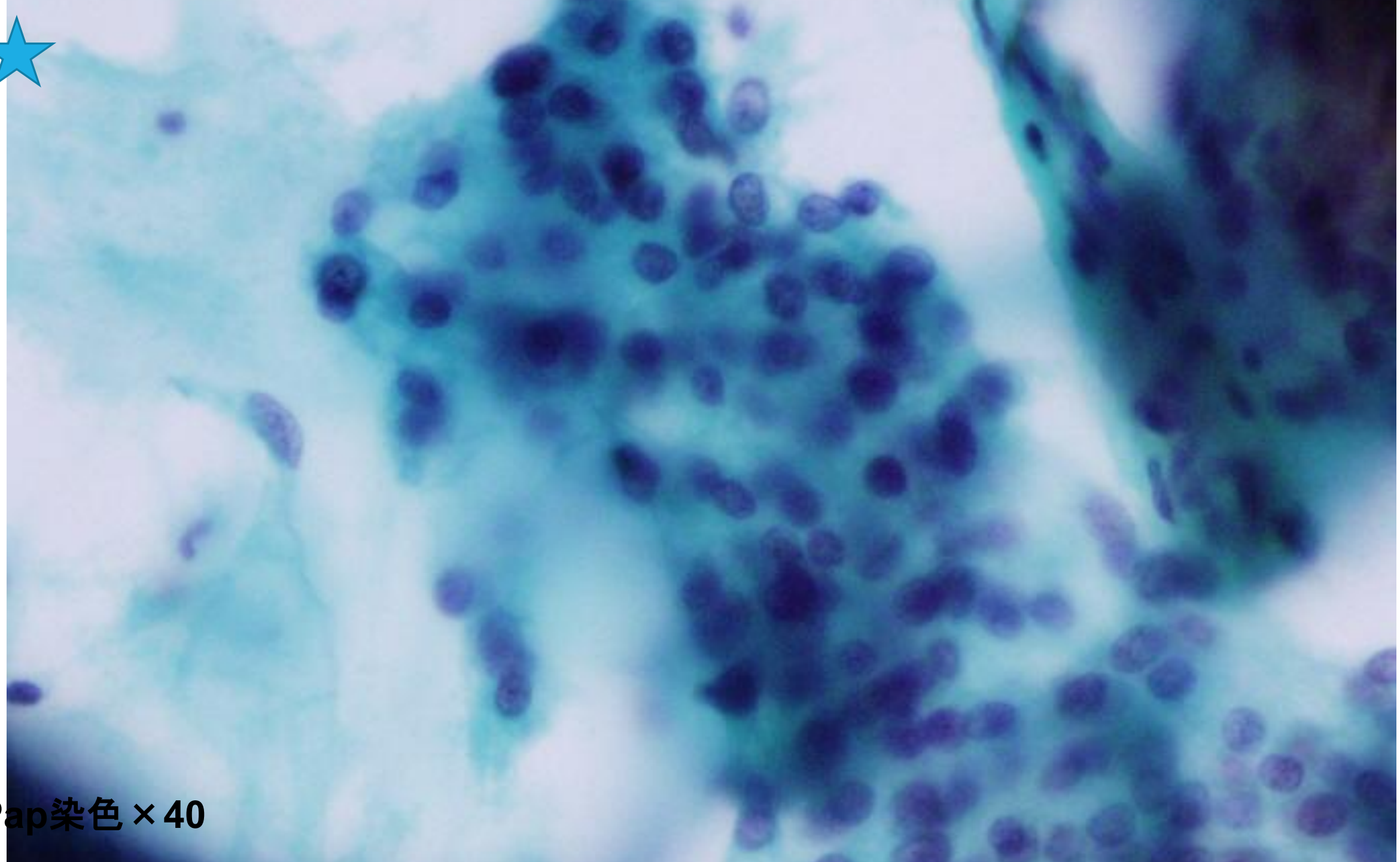

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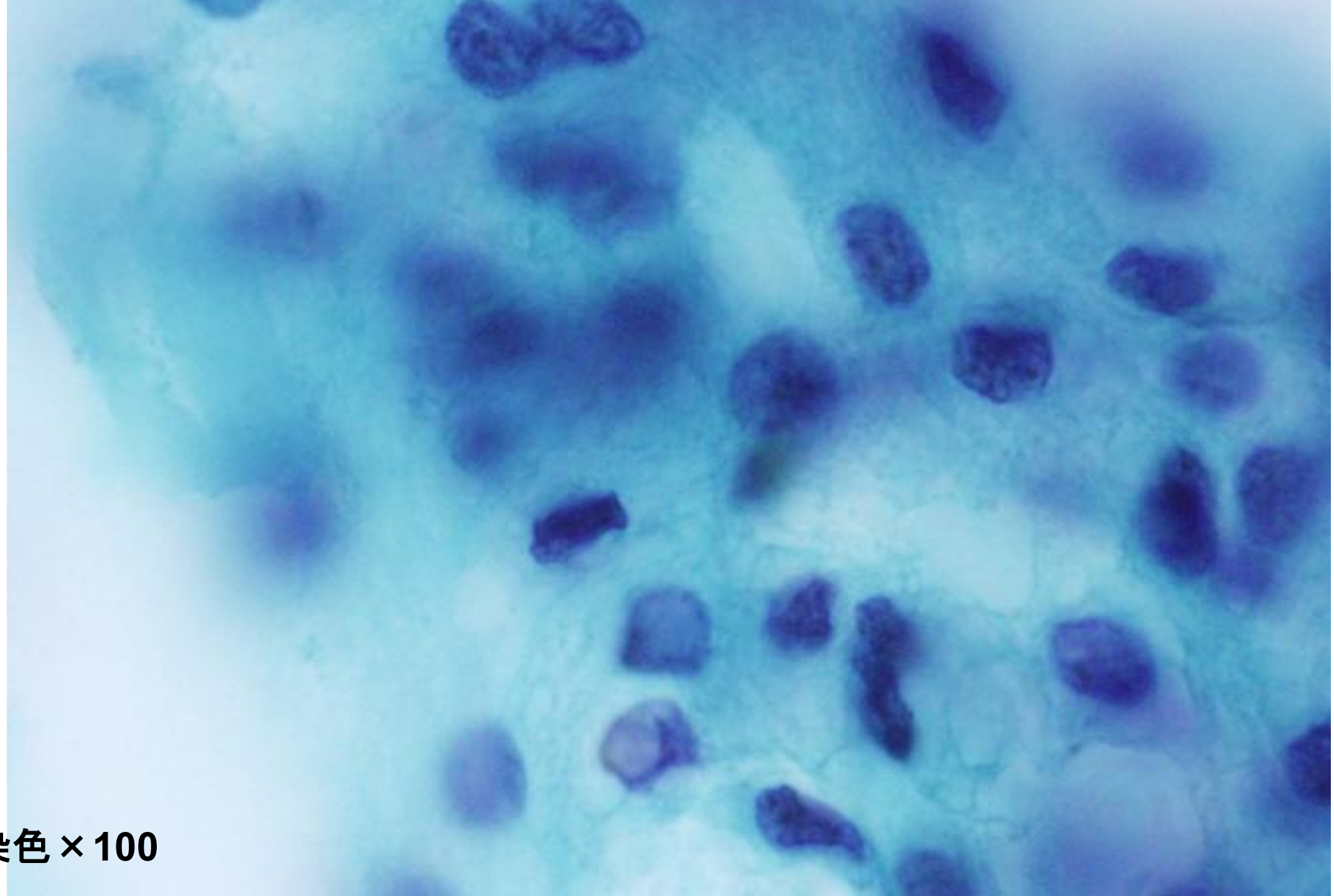

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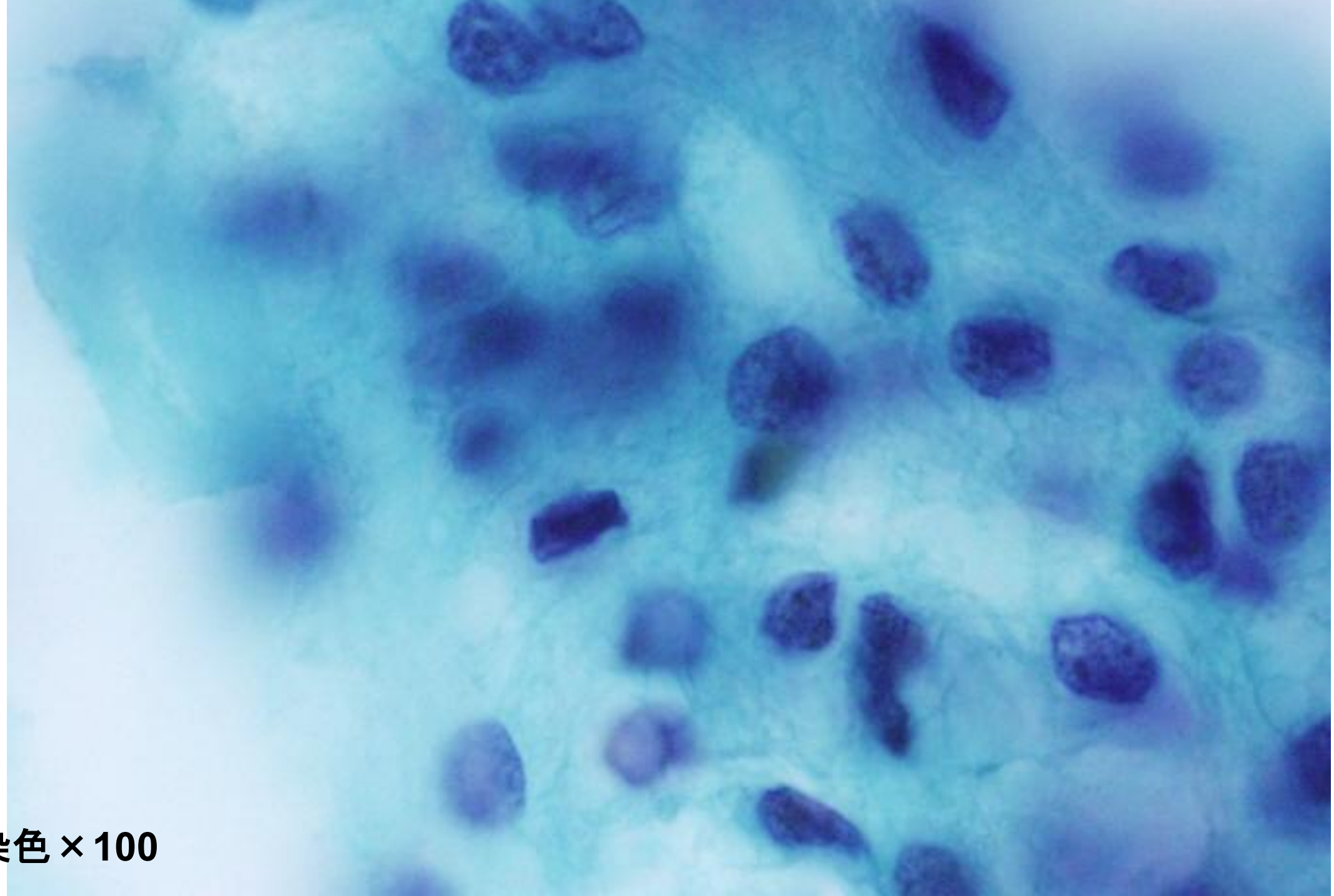

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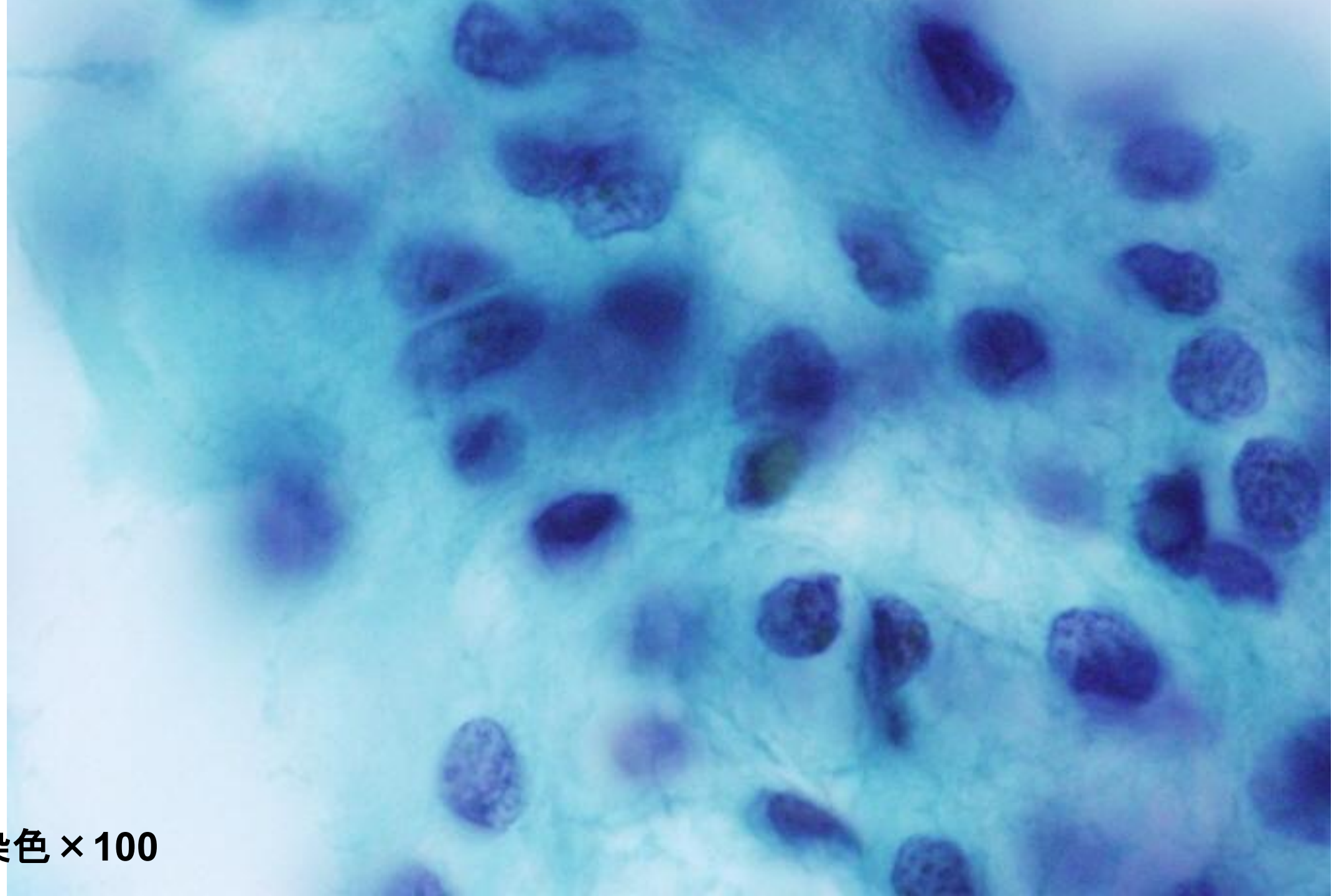

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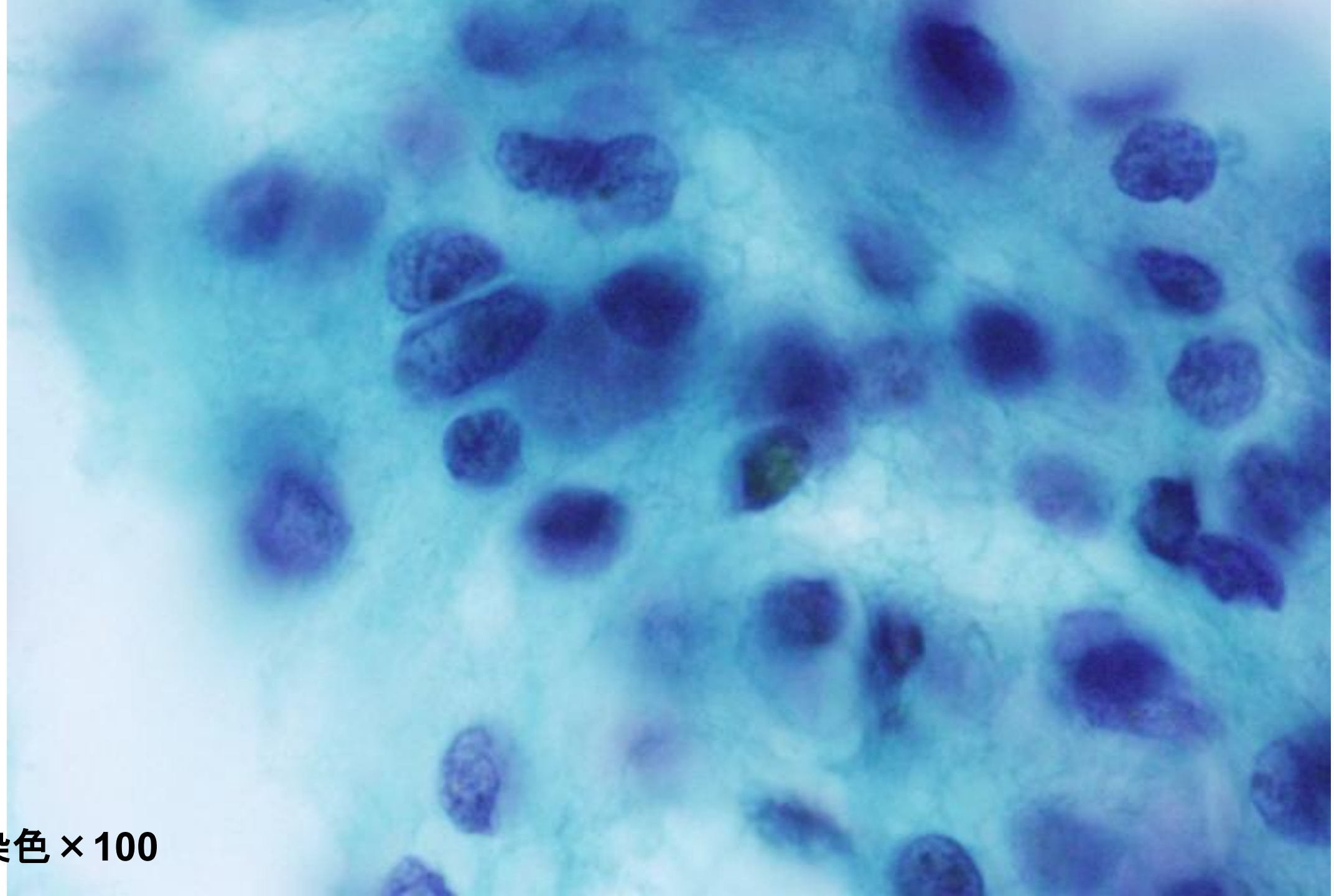

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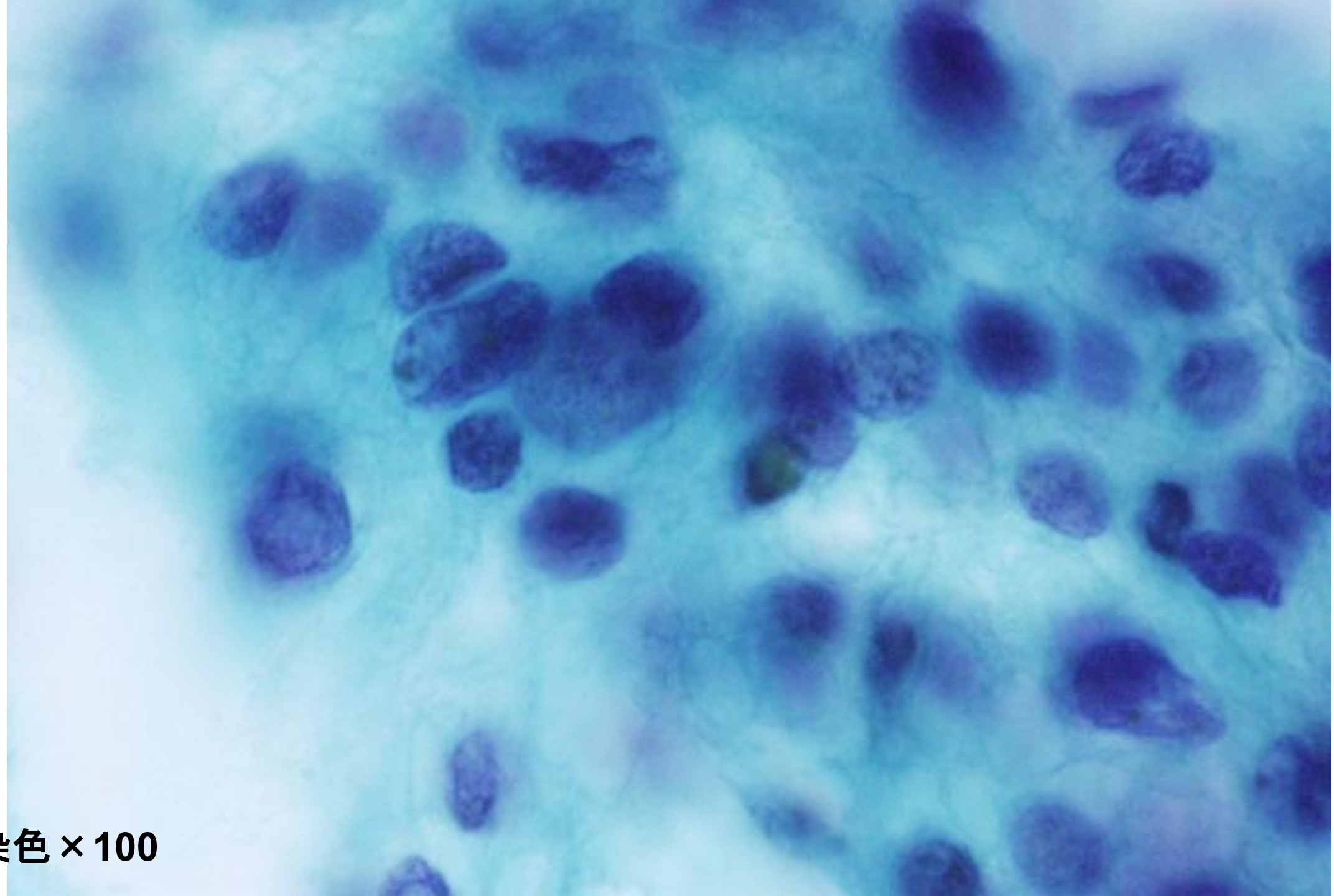

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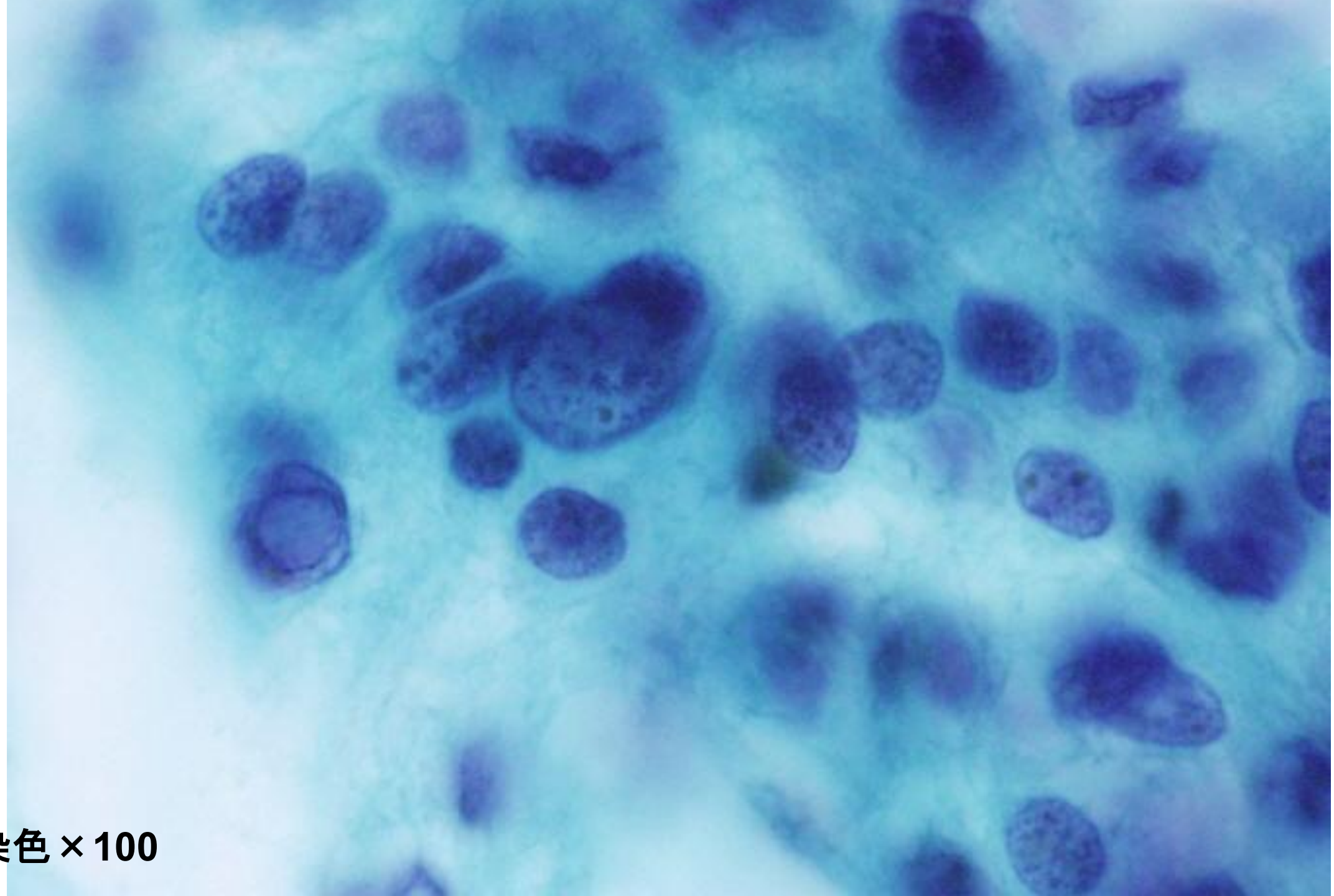

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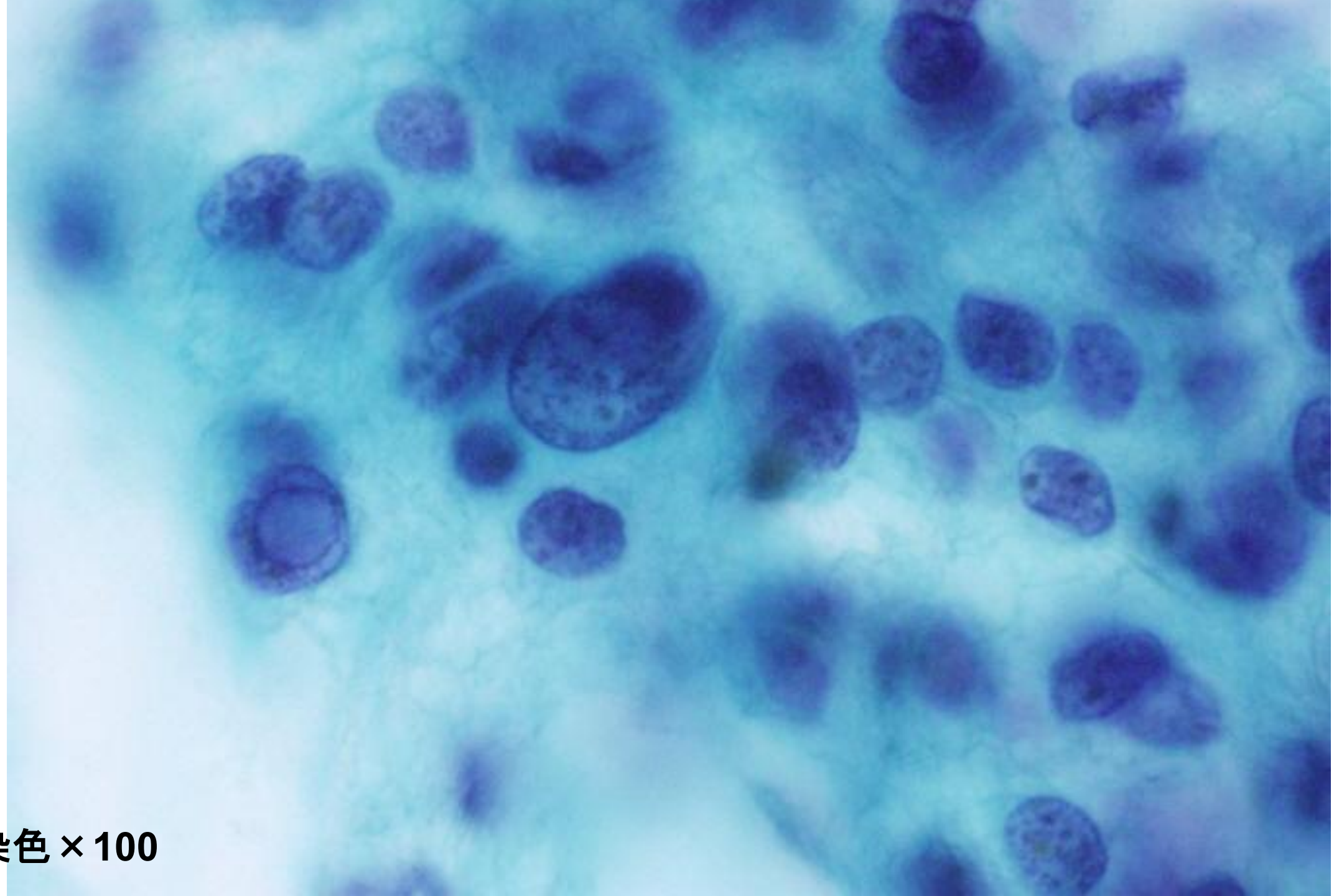

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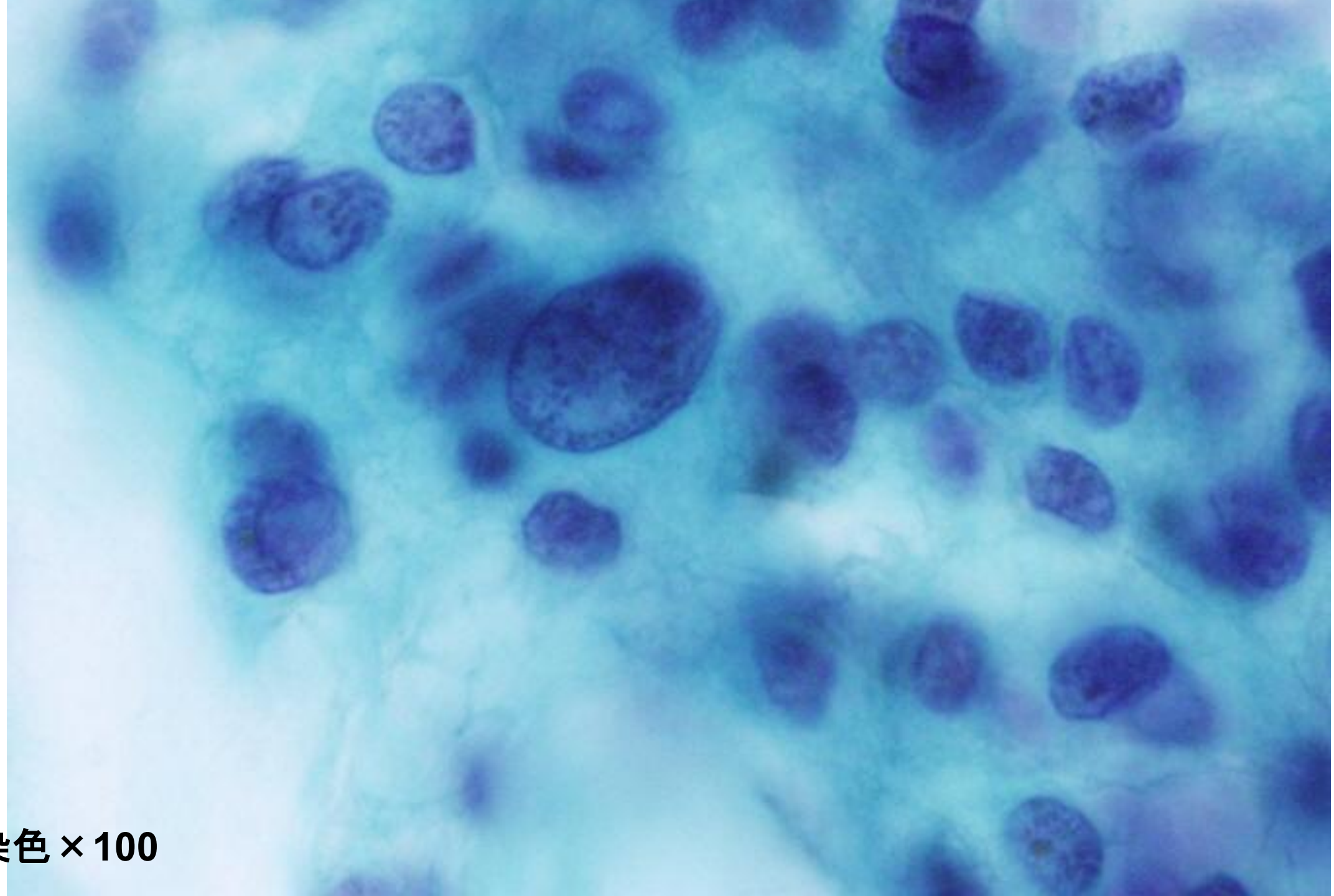

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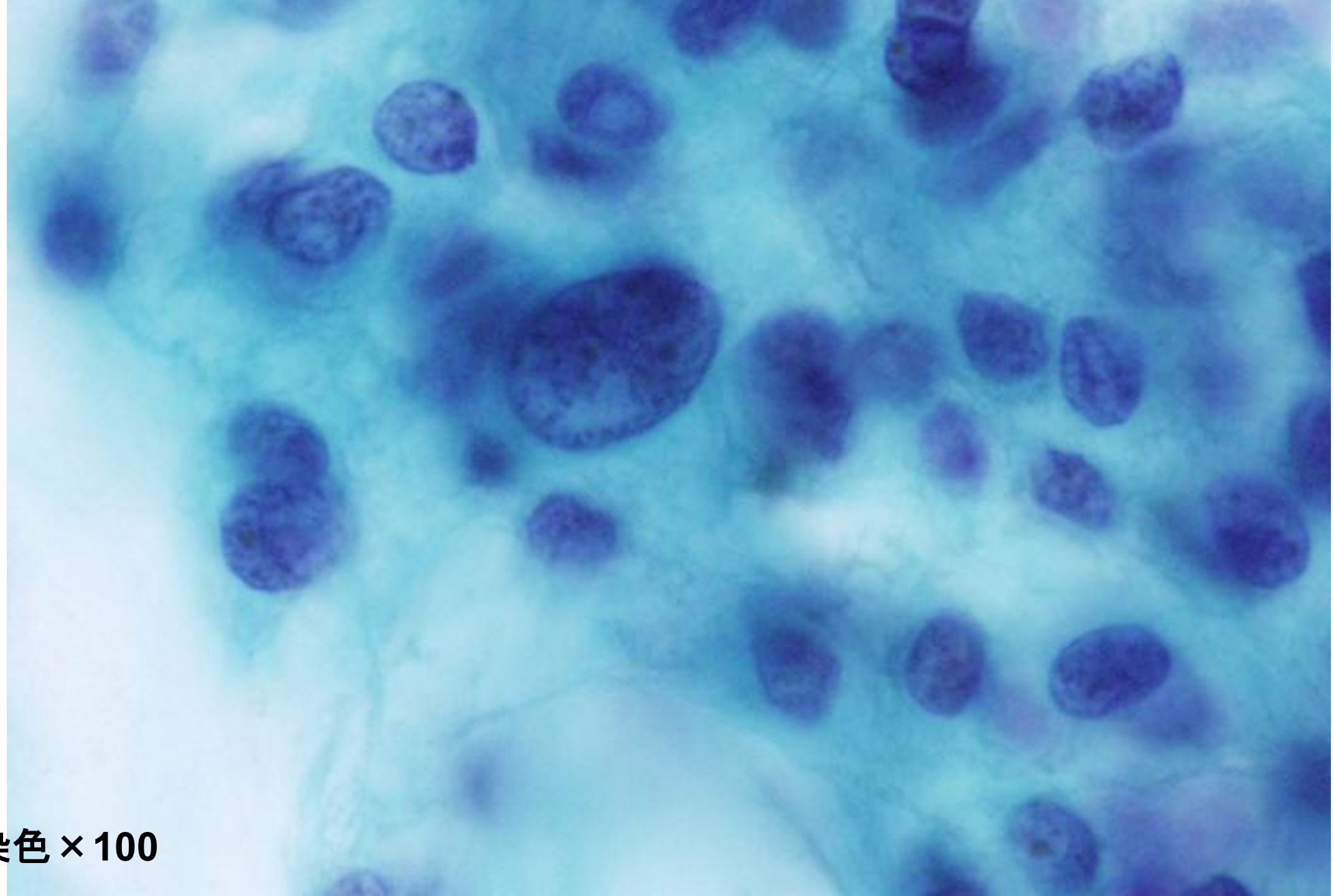

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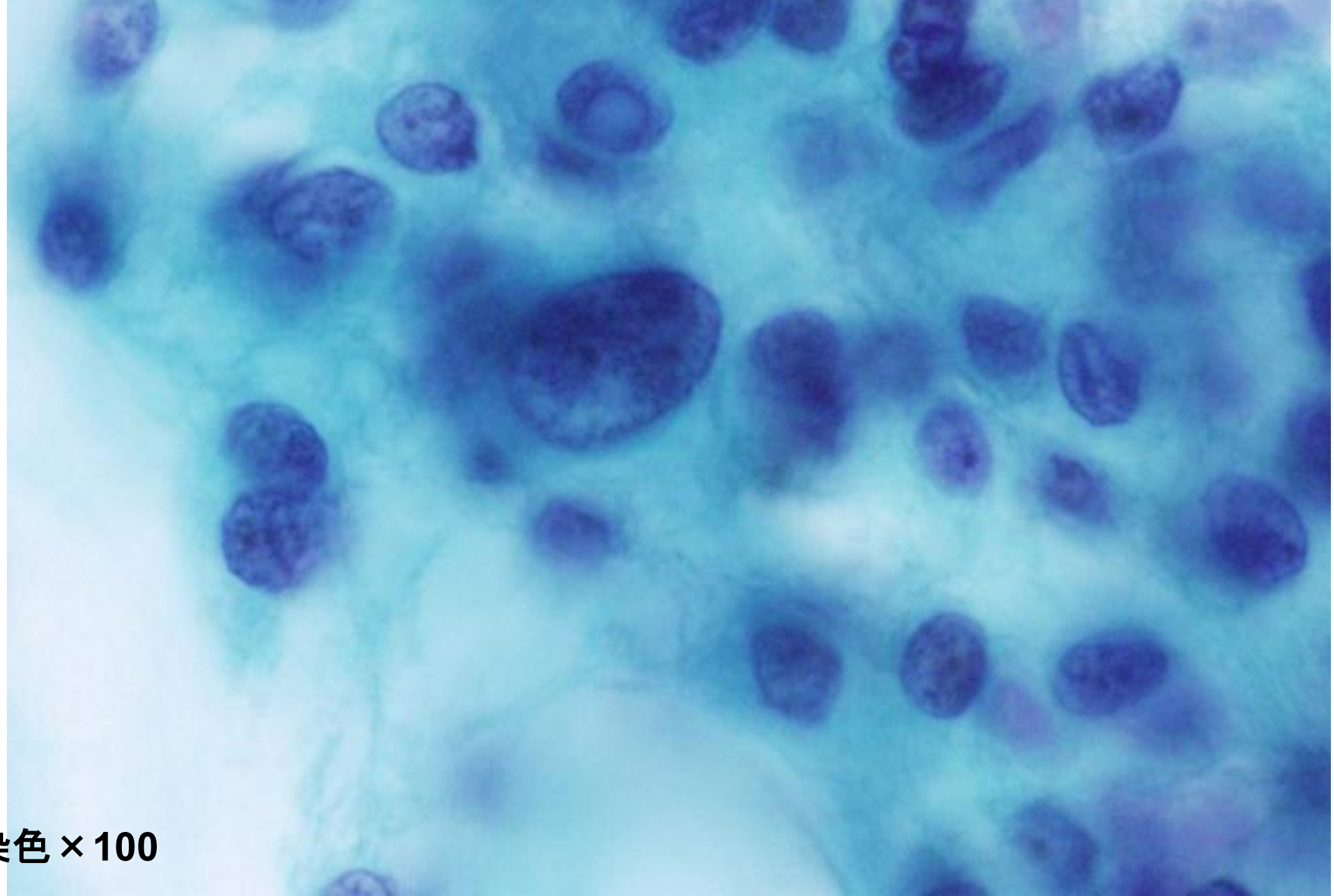

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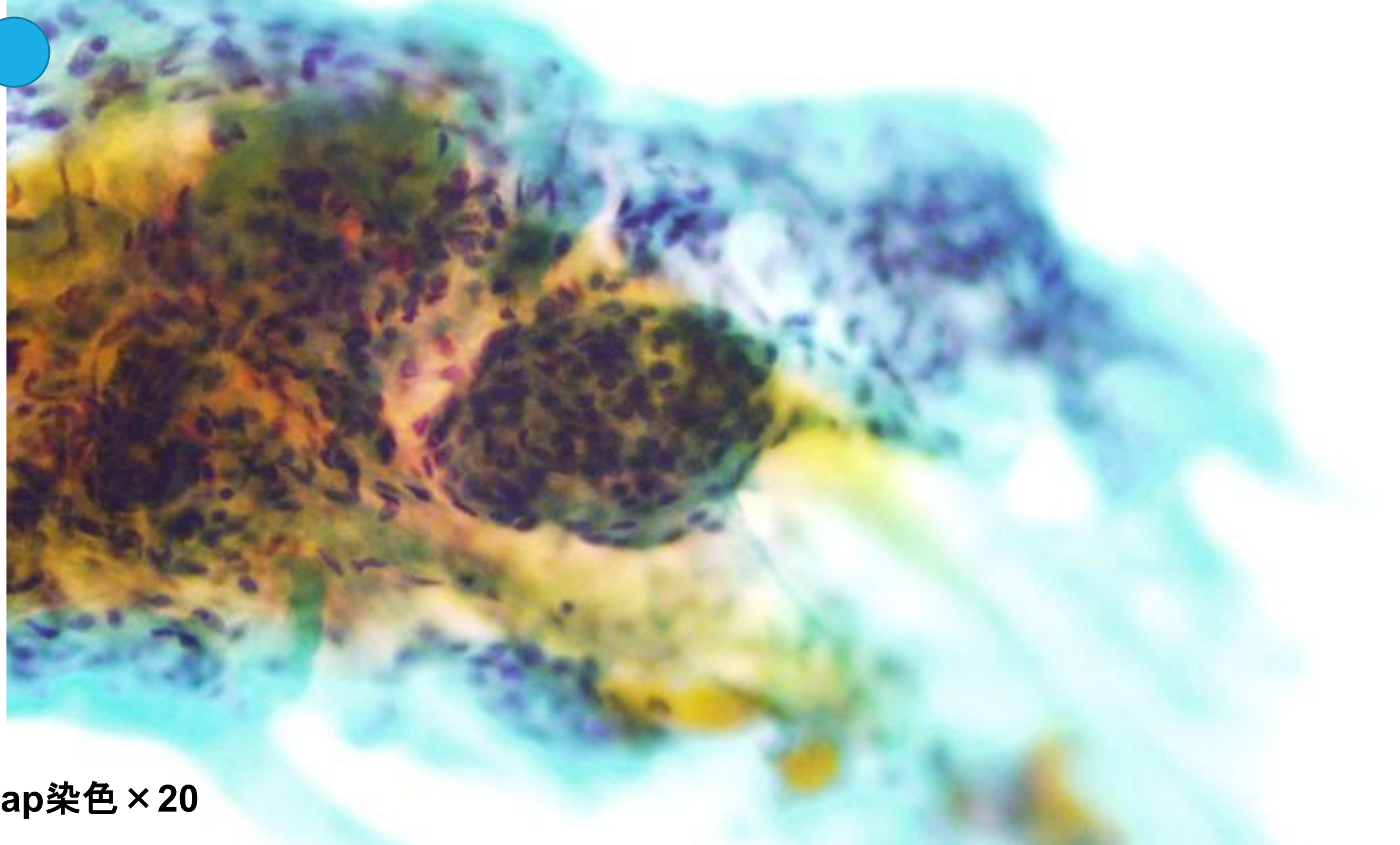

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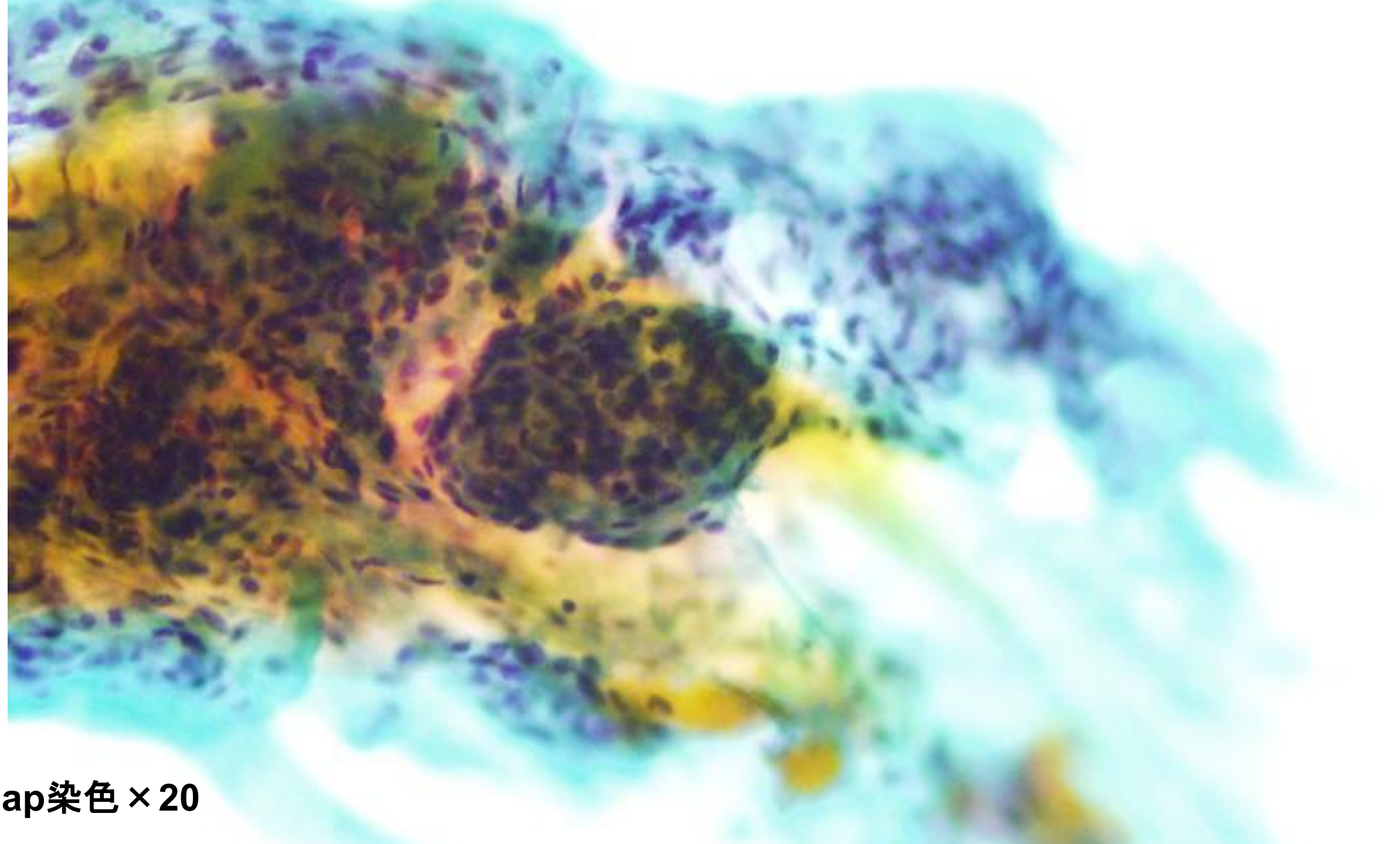

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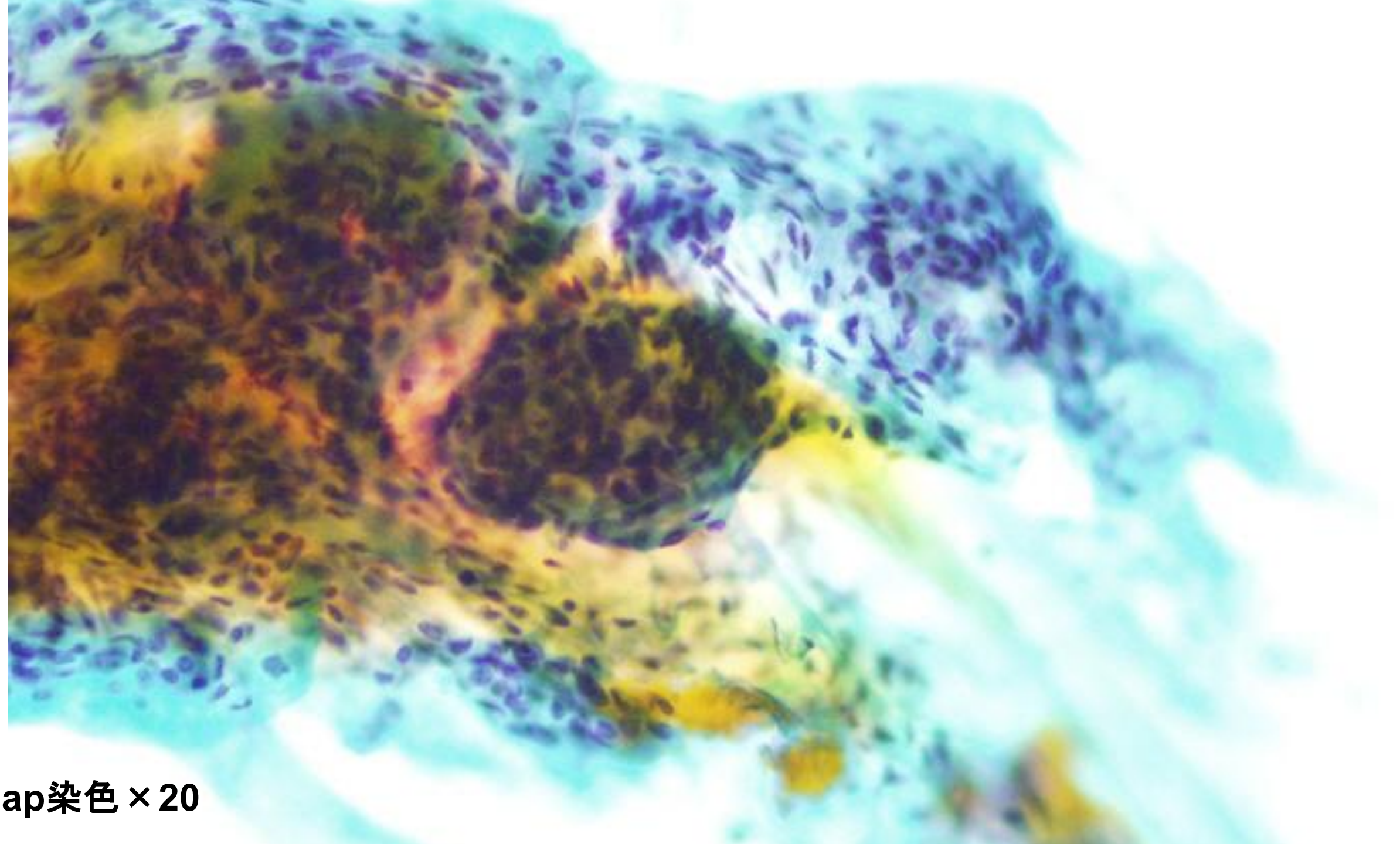

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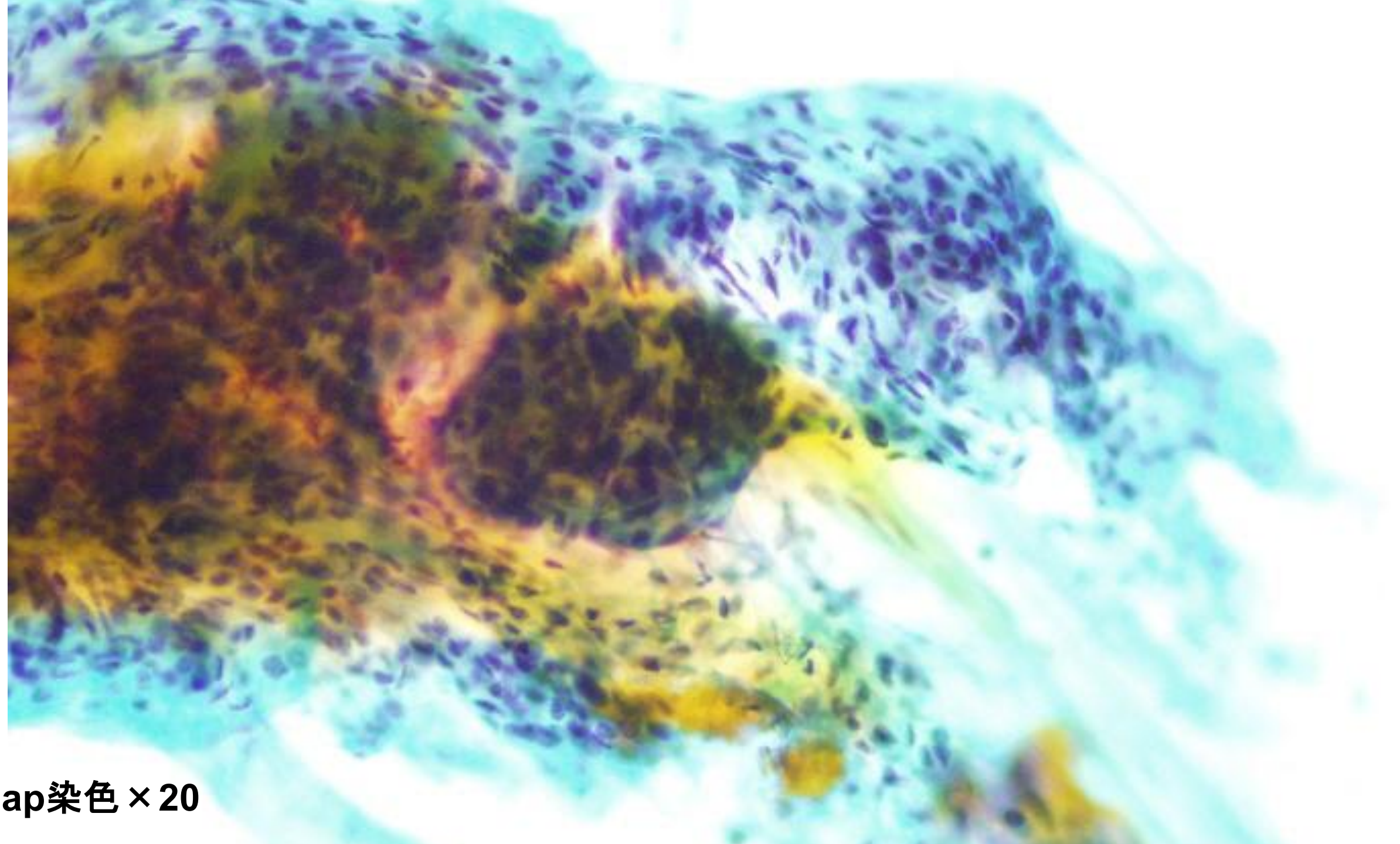

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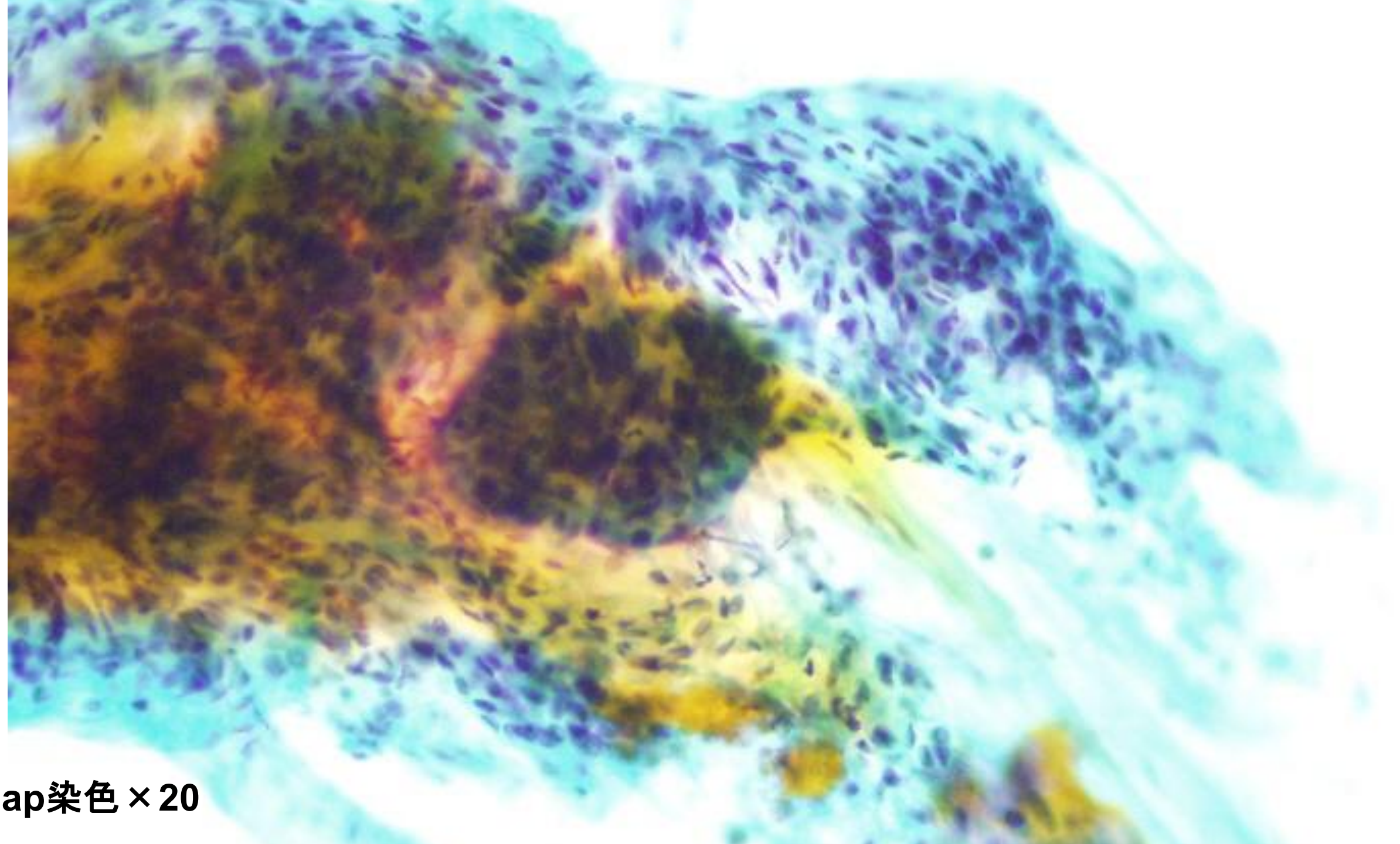

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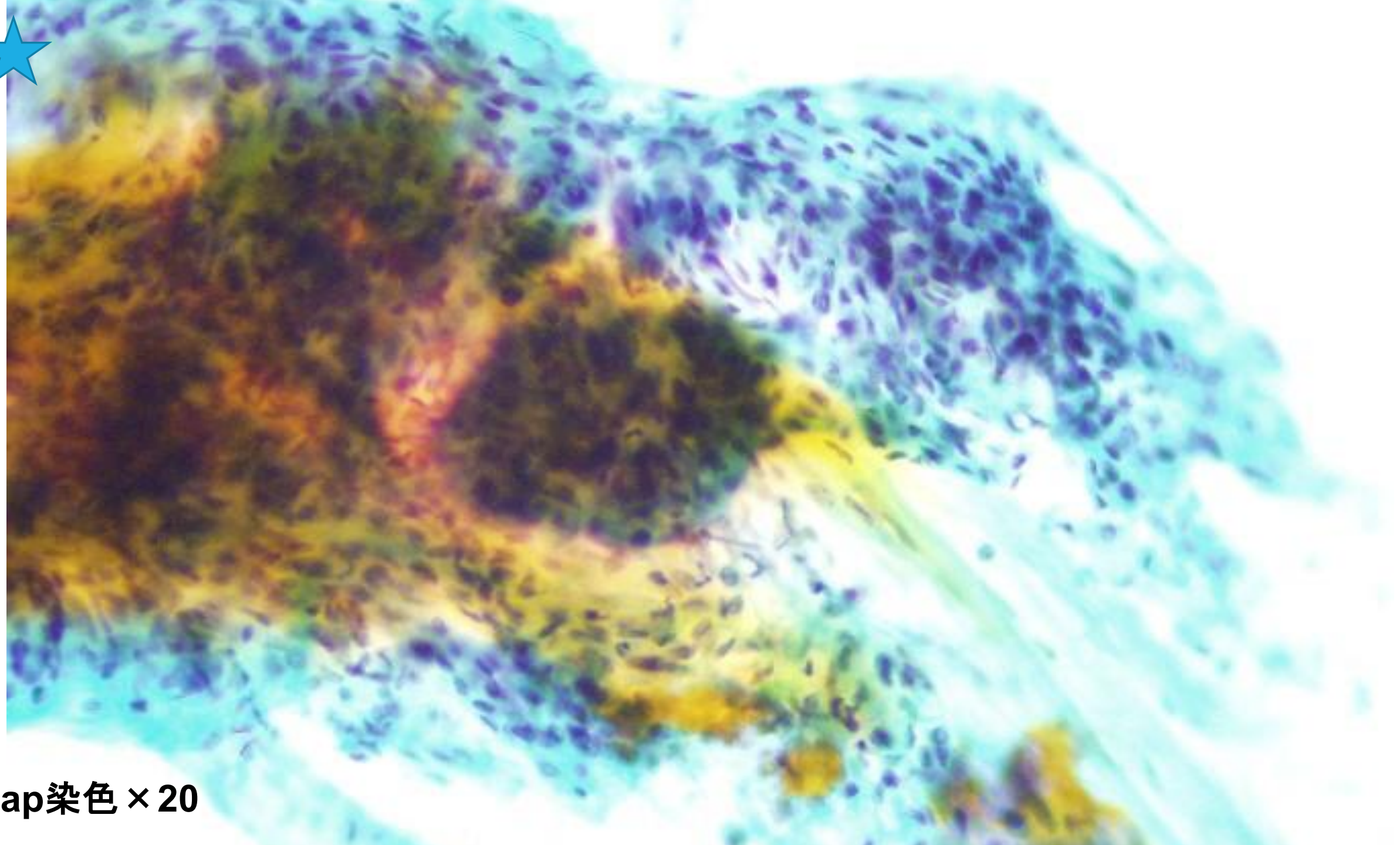

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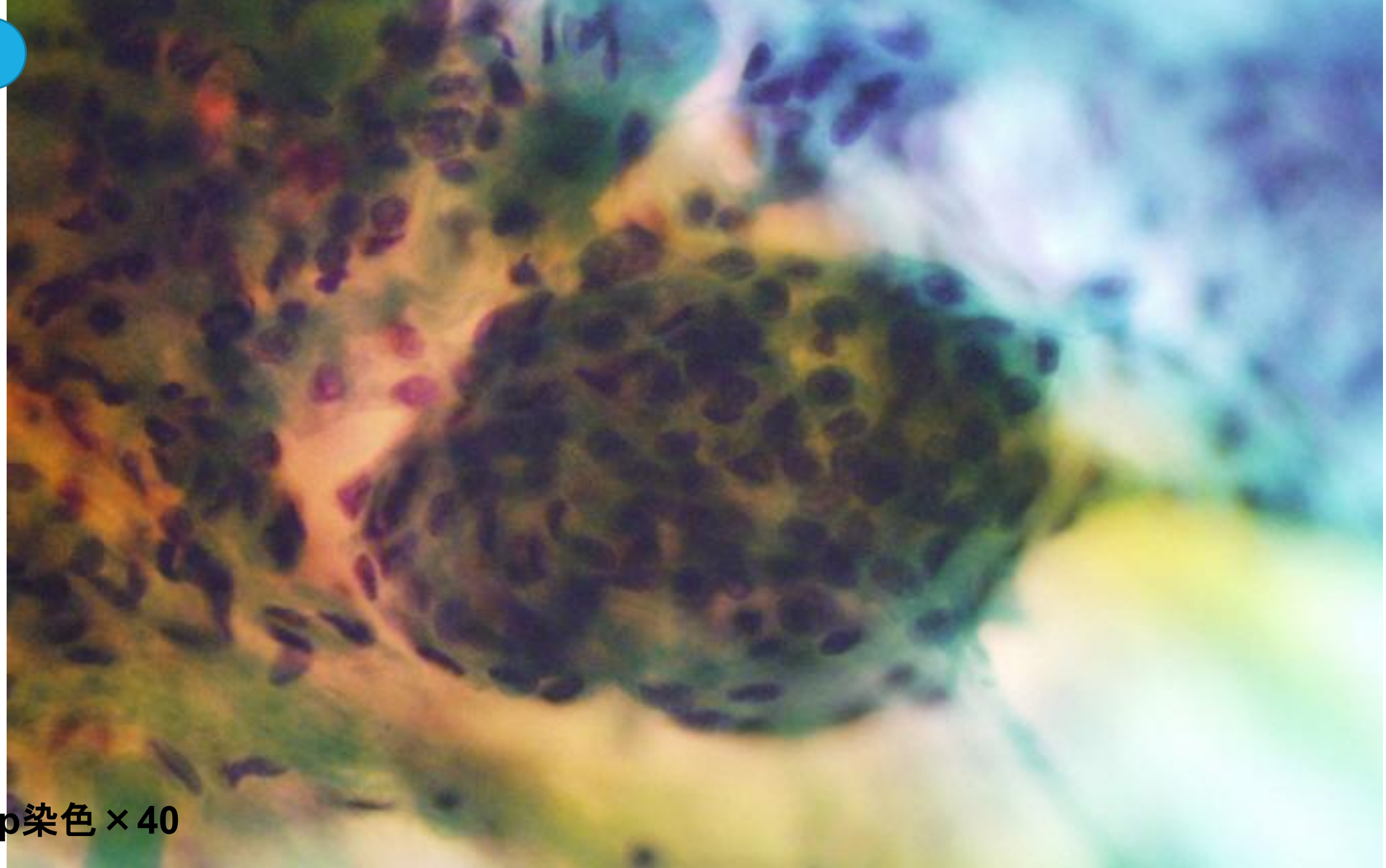

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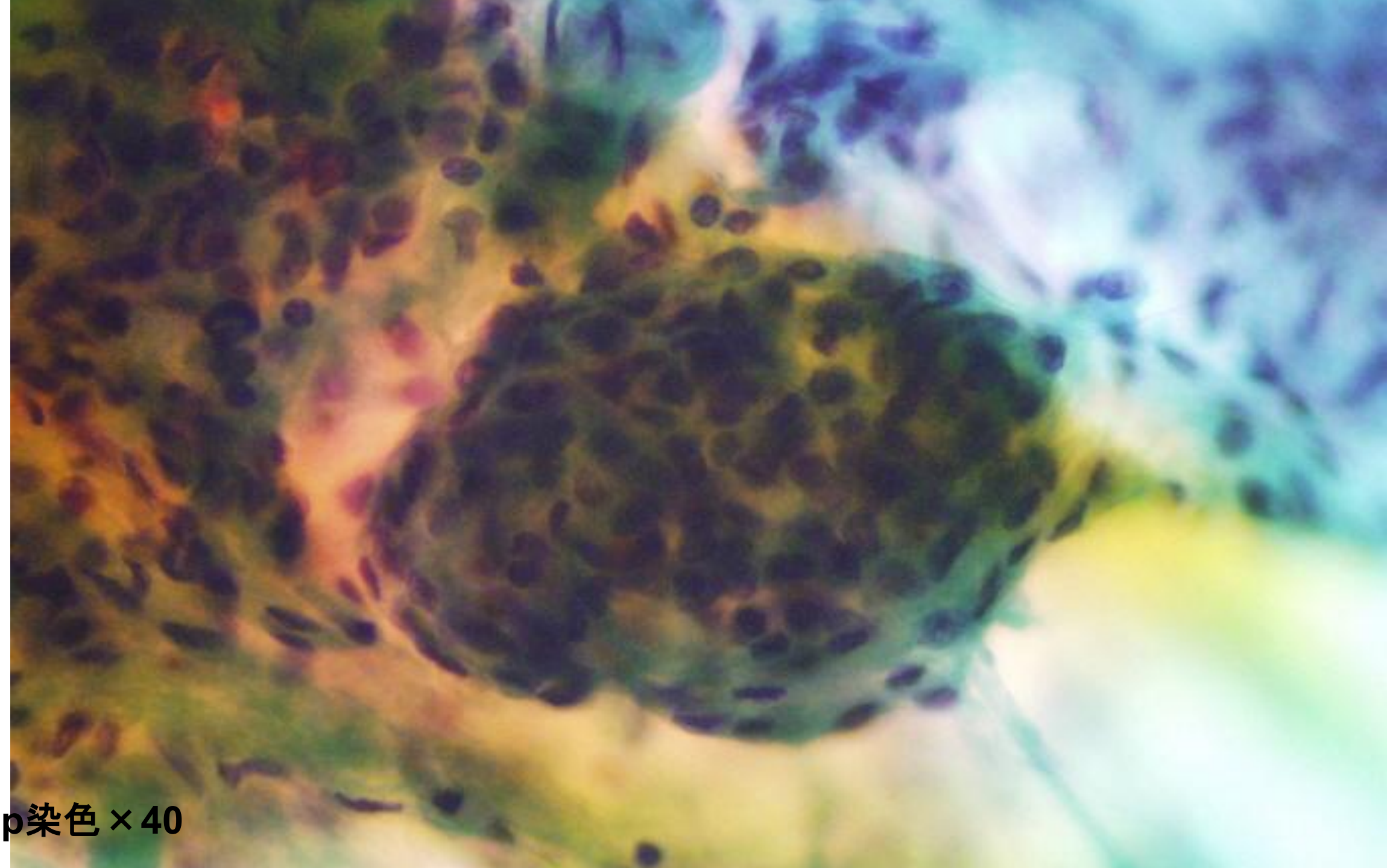

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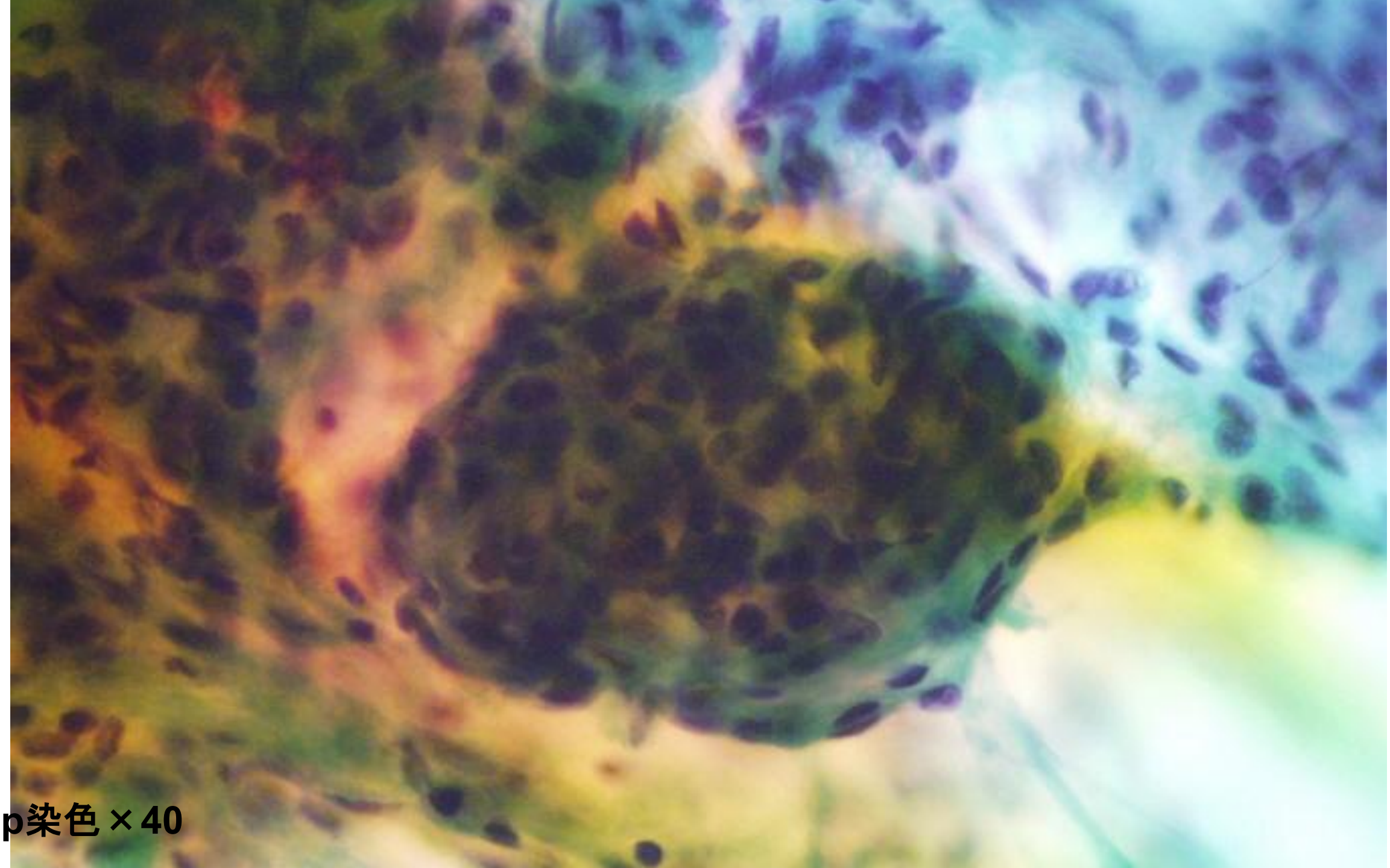

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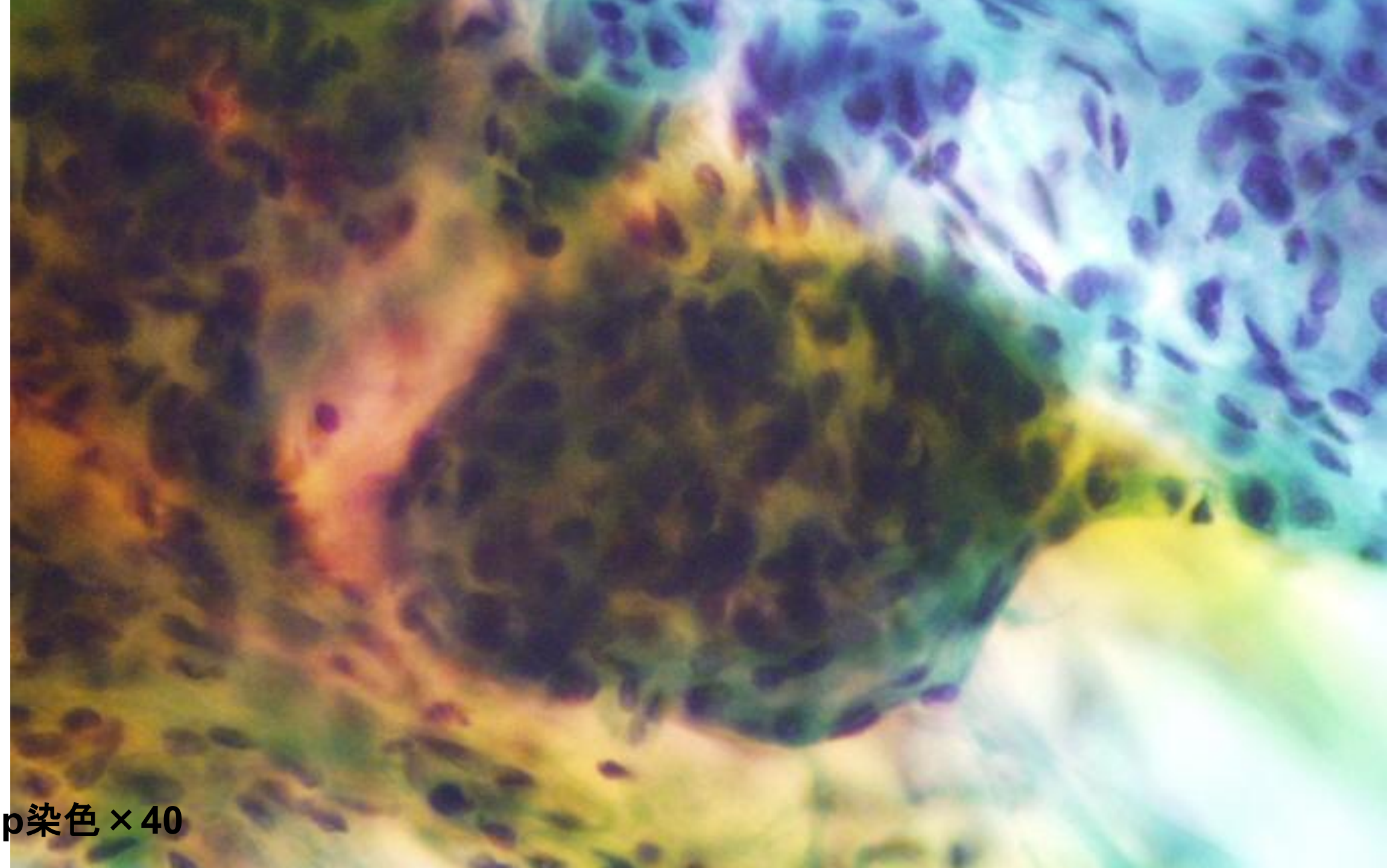

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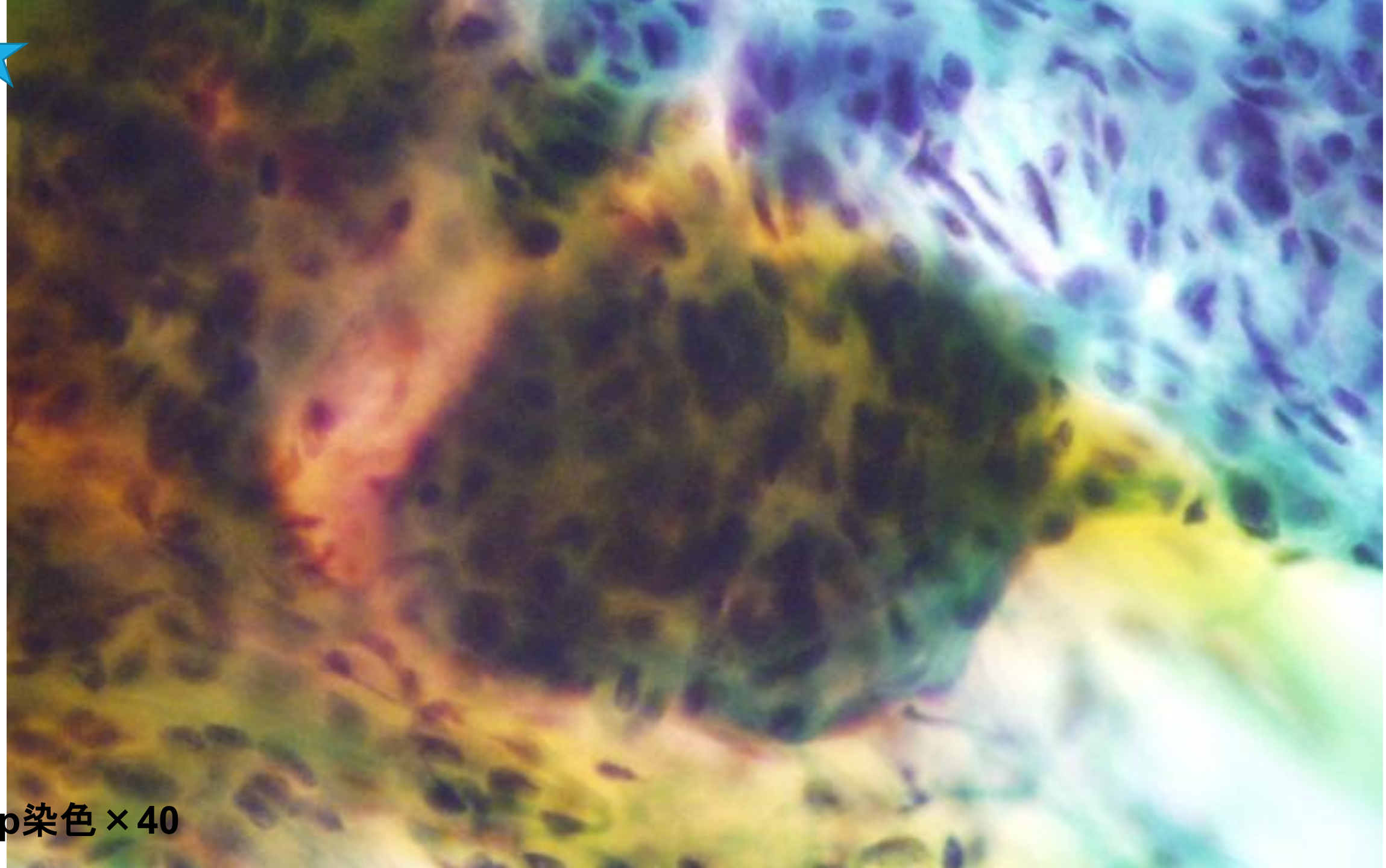
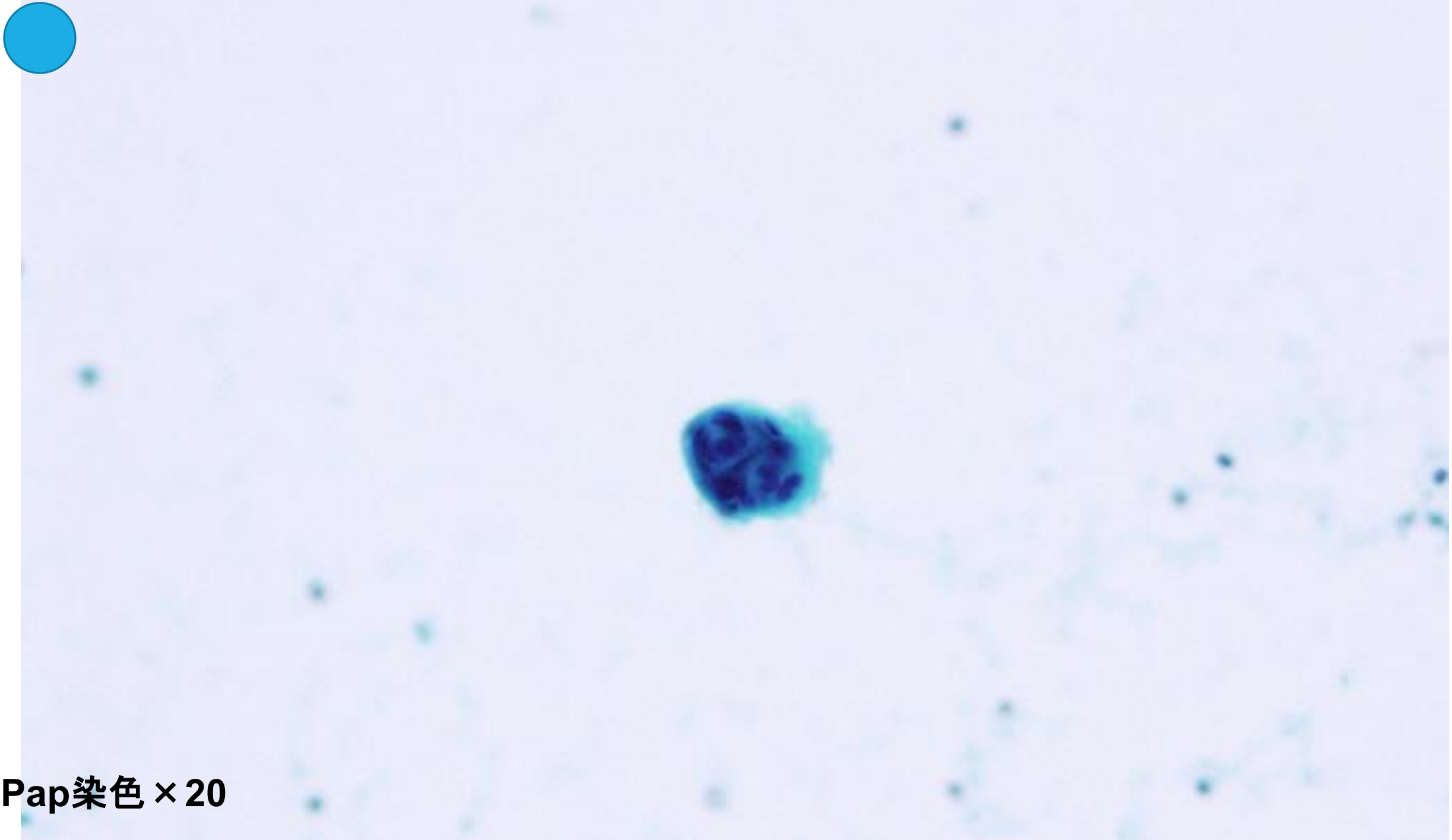


Pap染色×40



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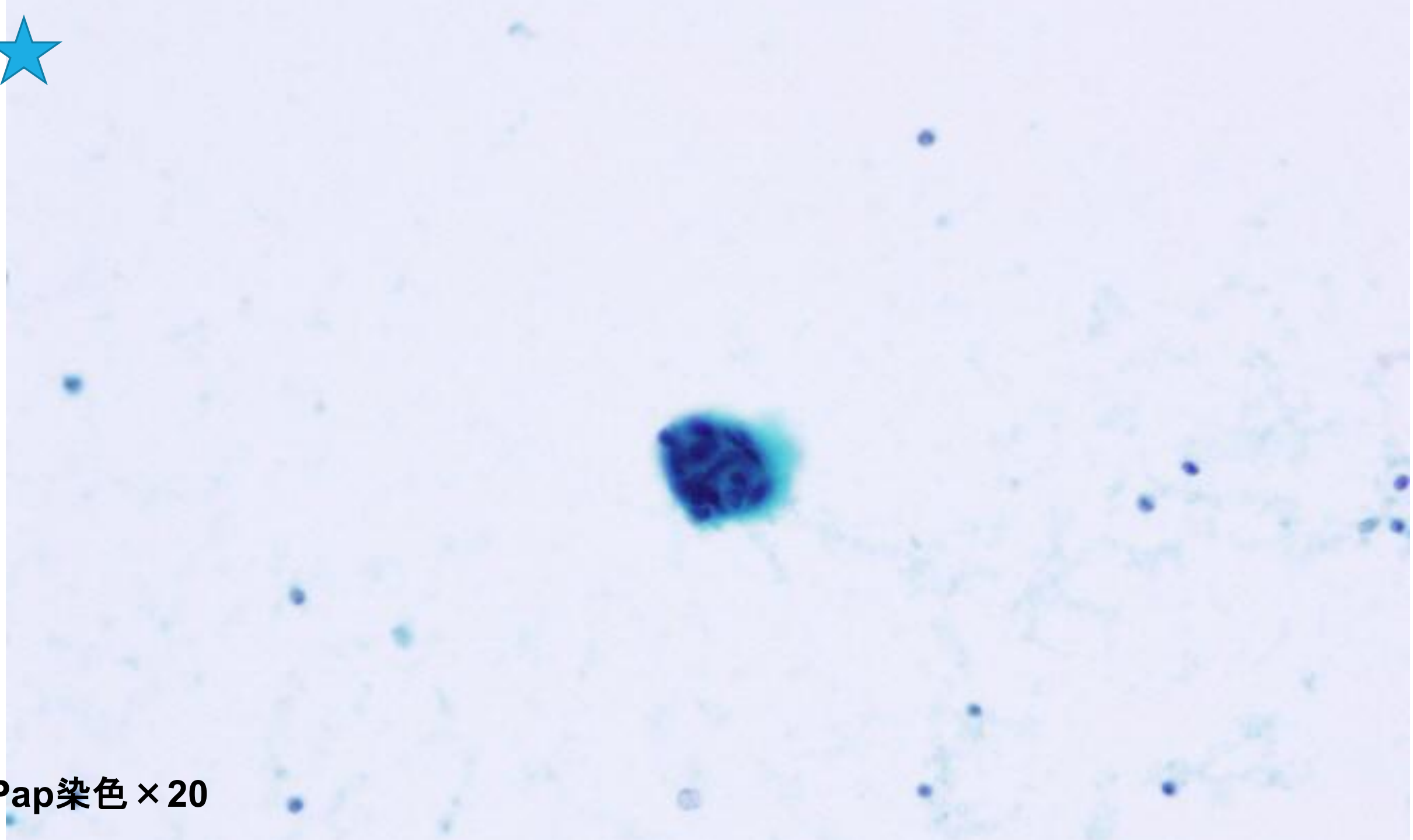

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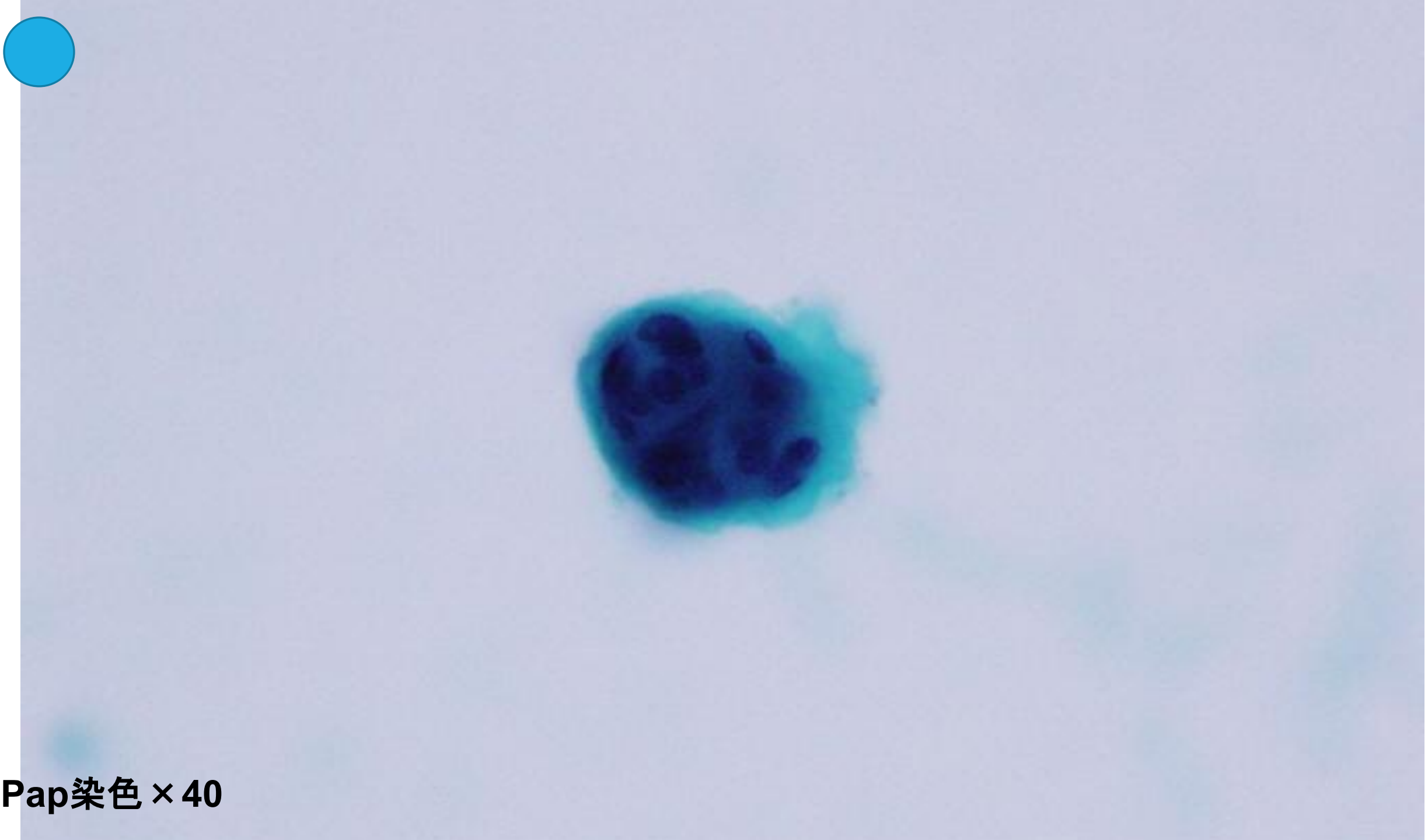

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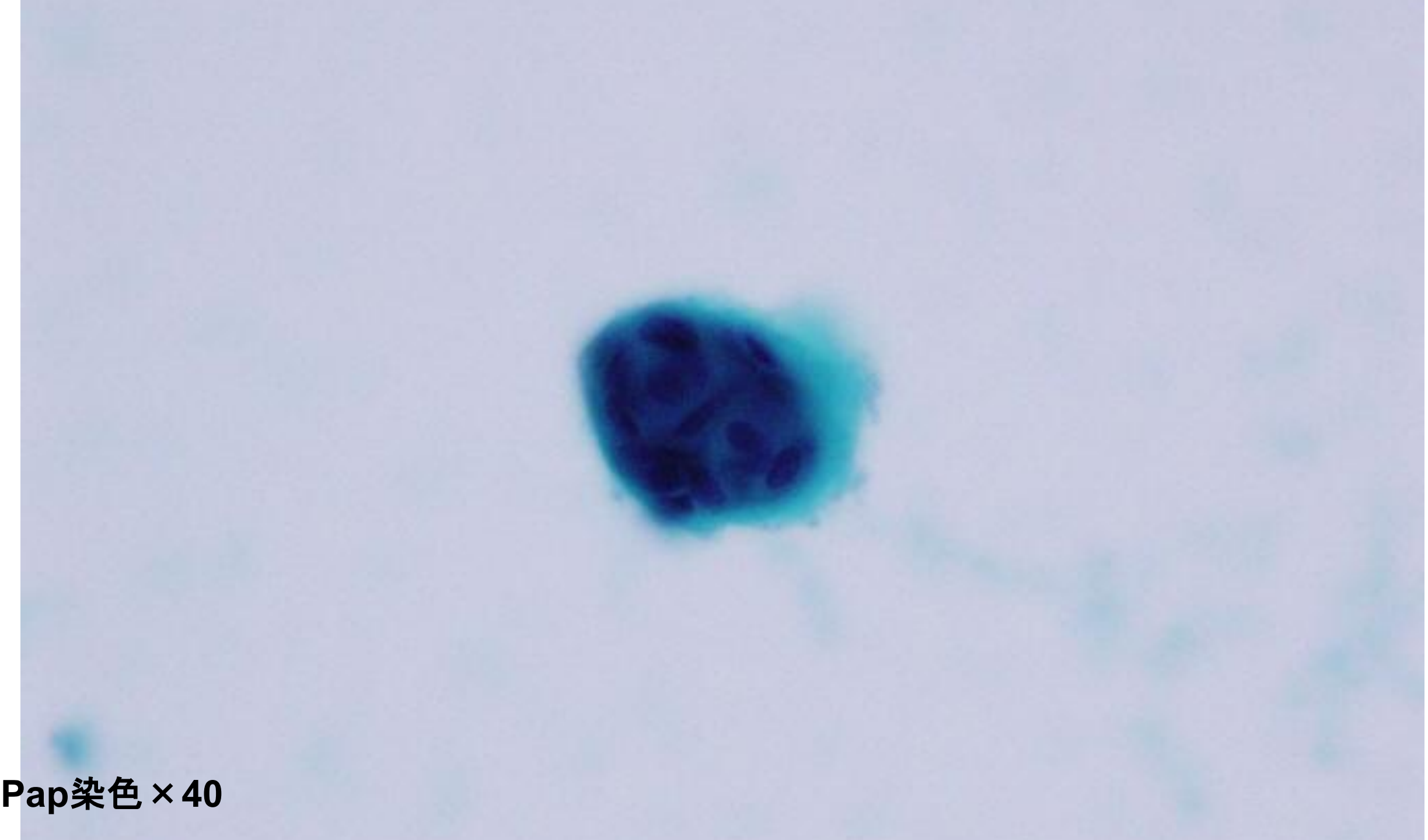

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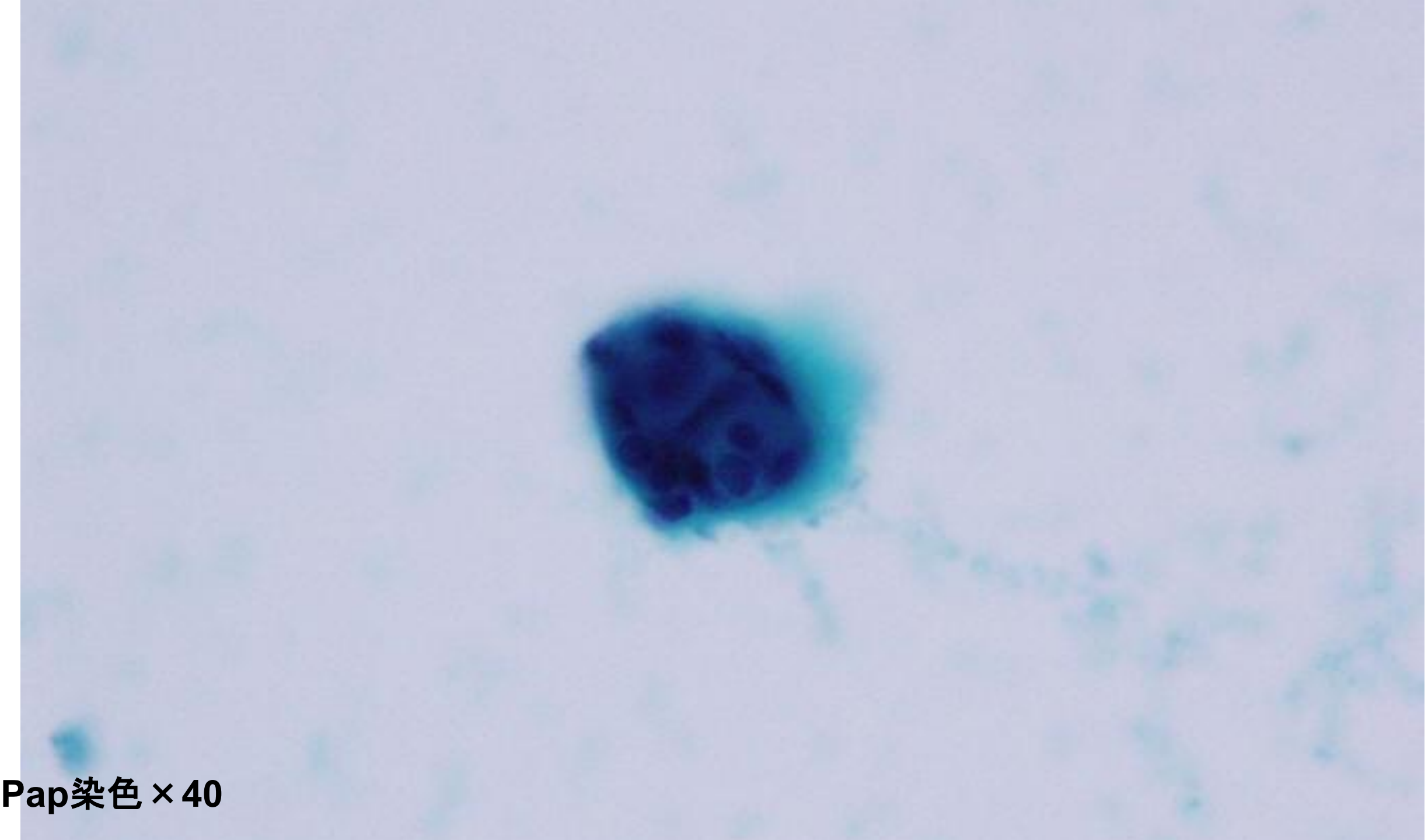

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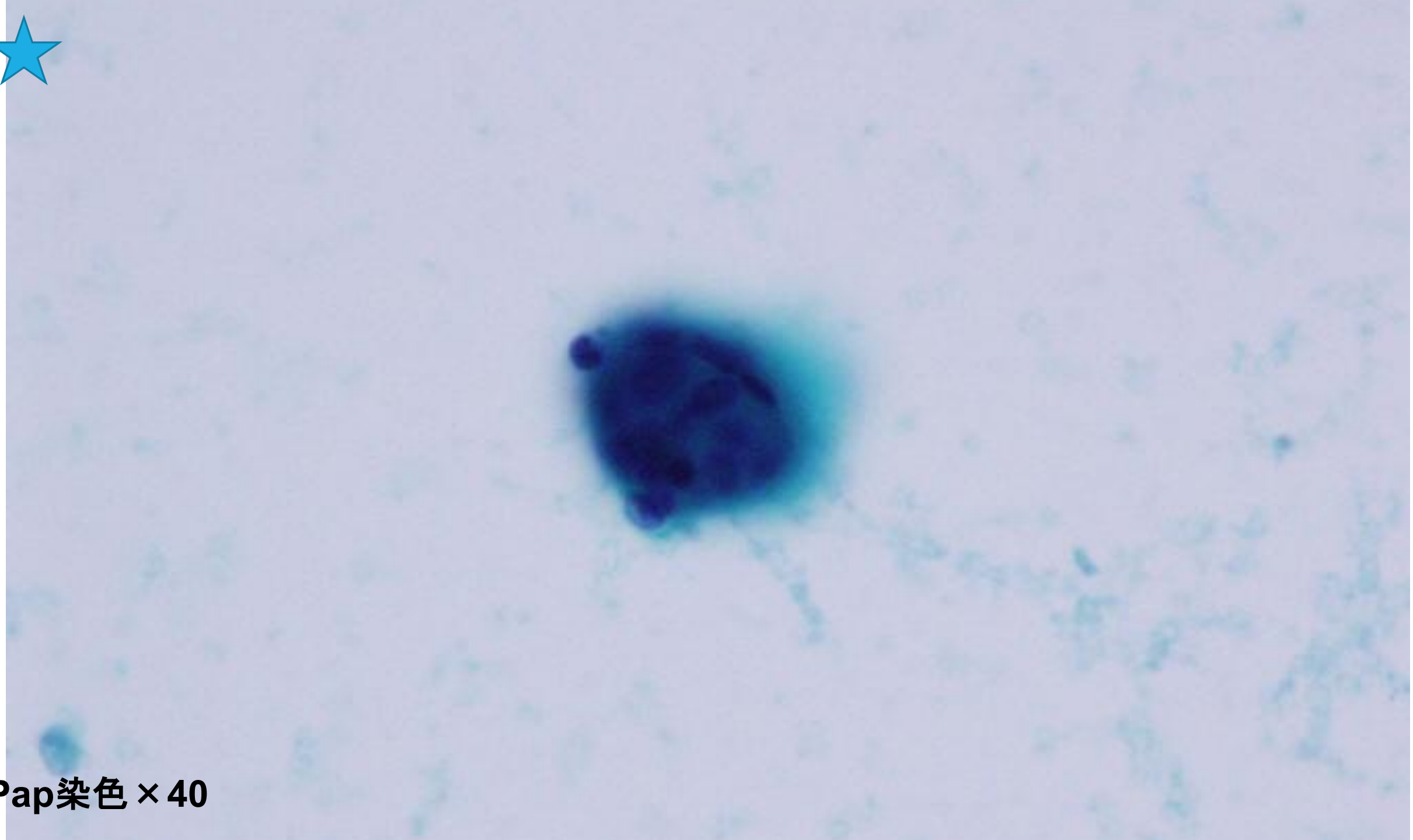

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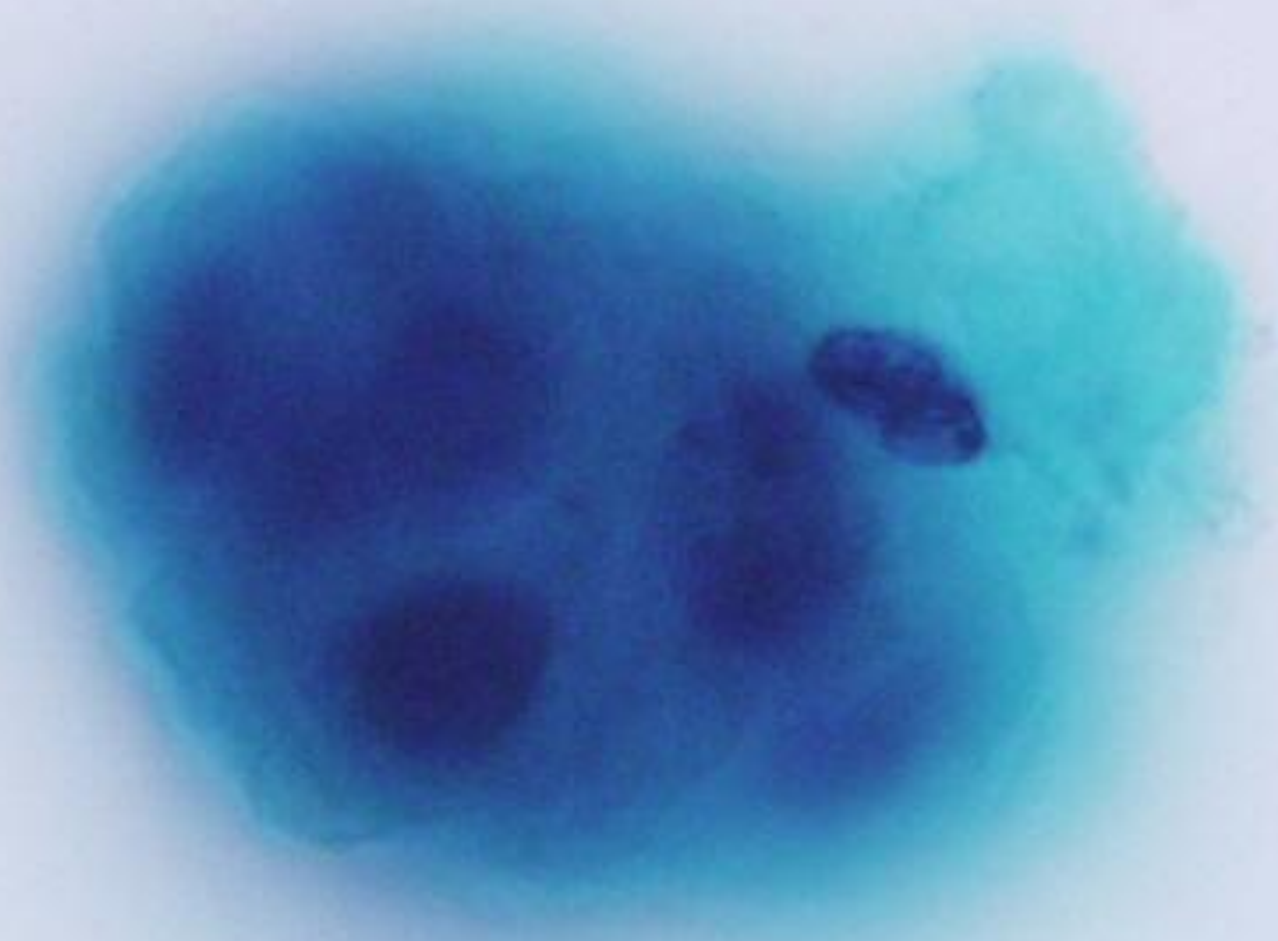

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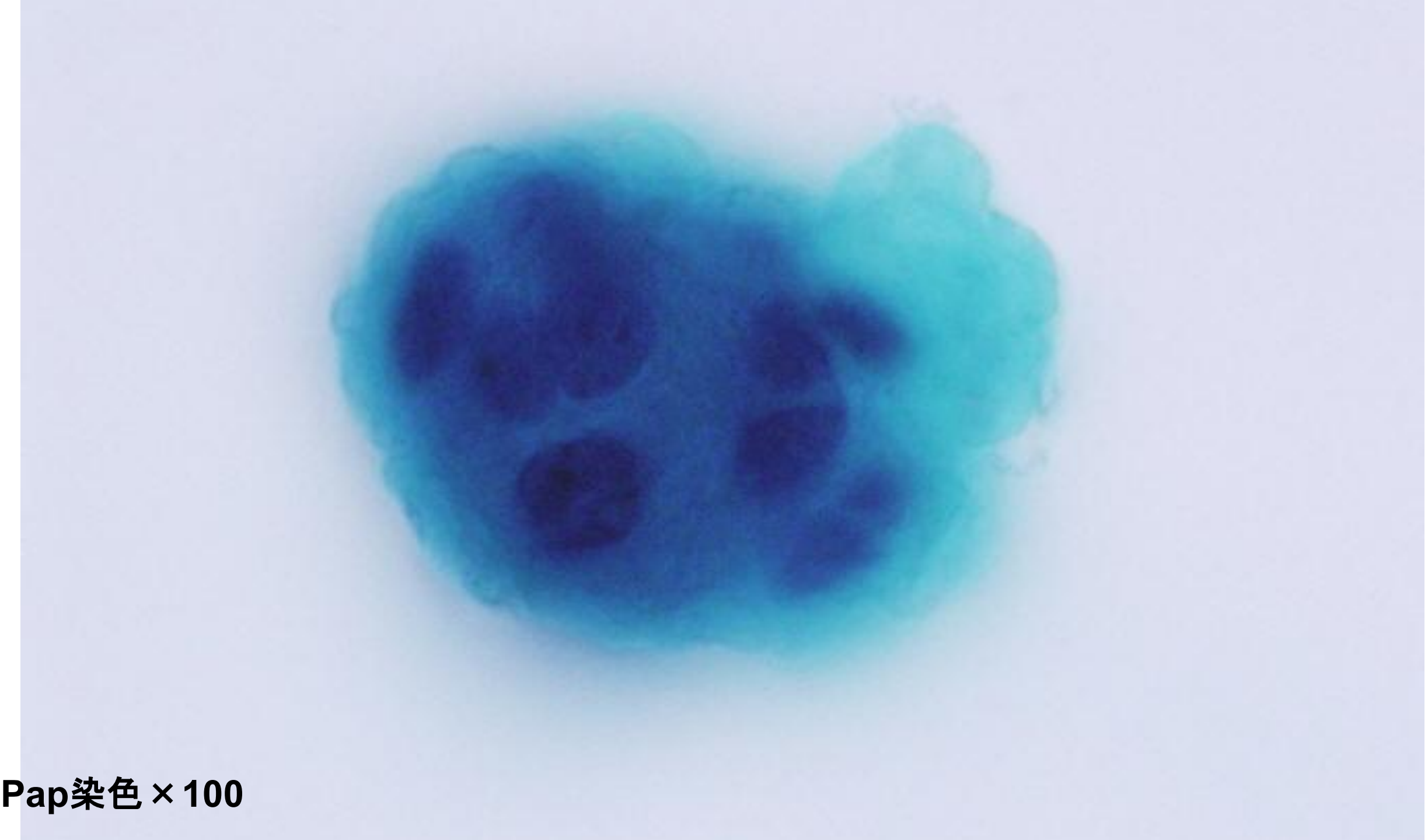

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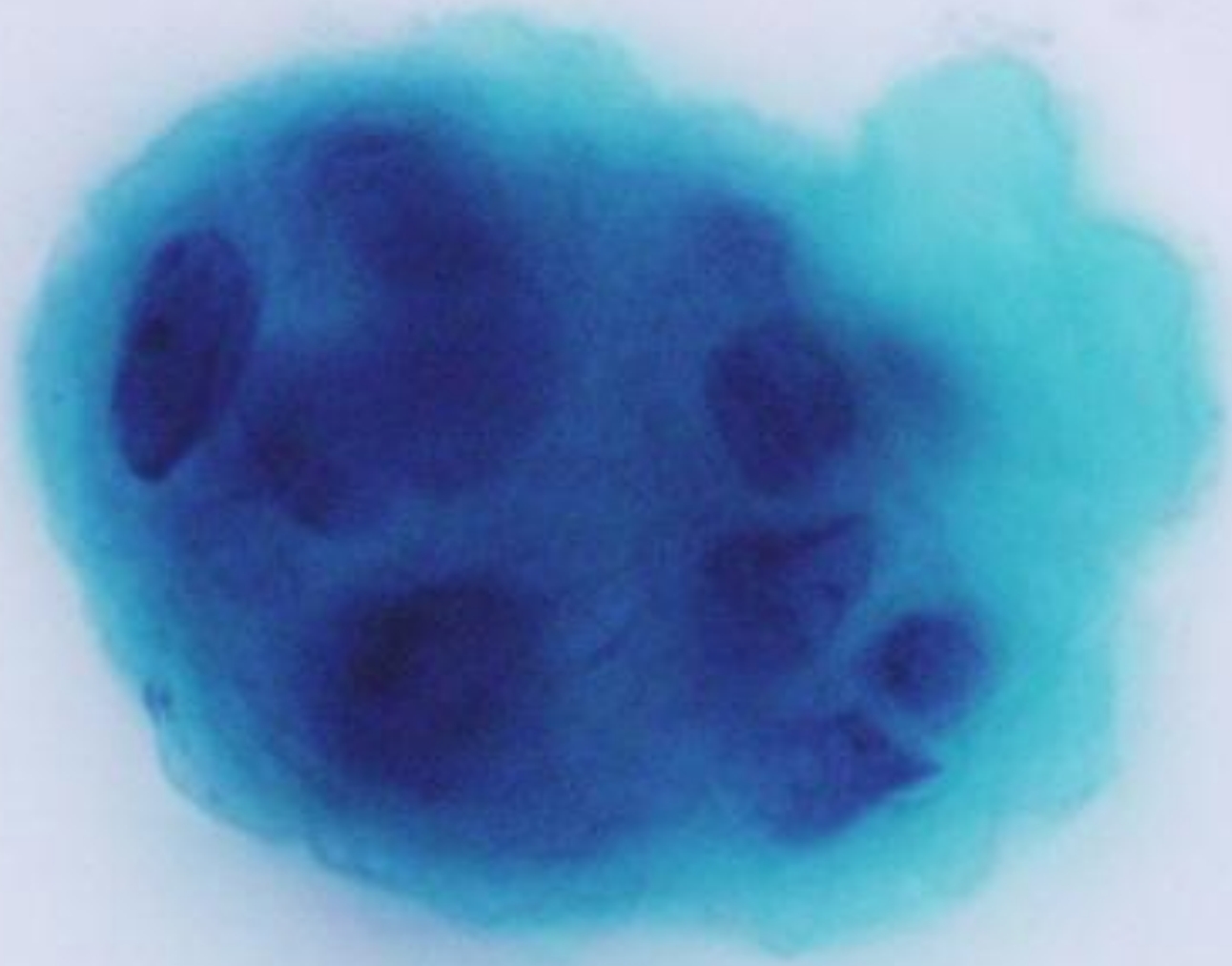

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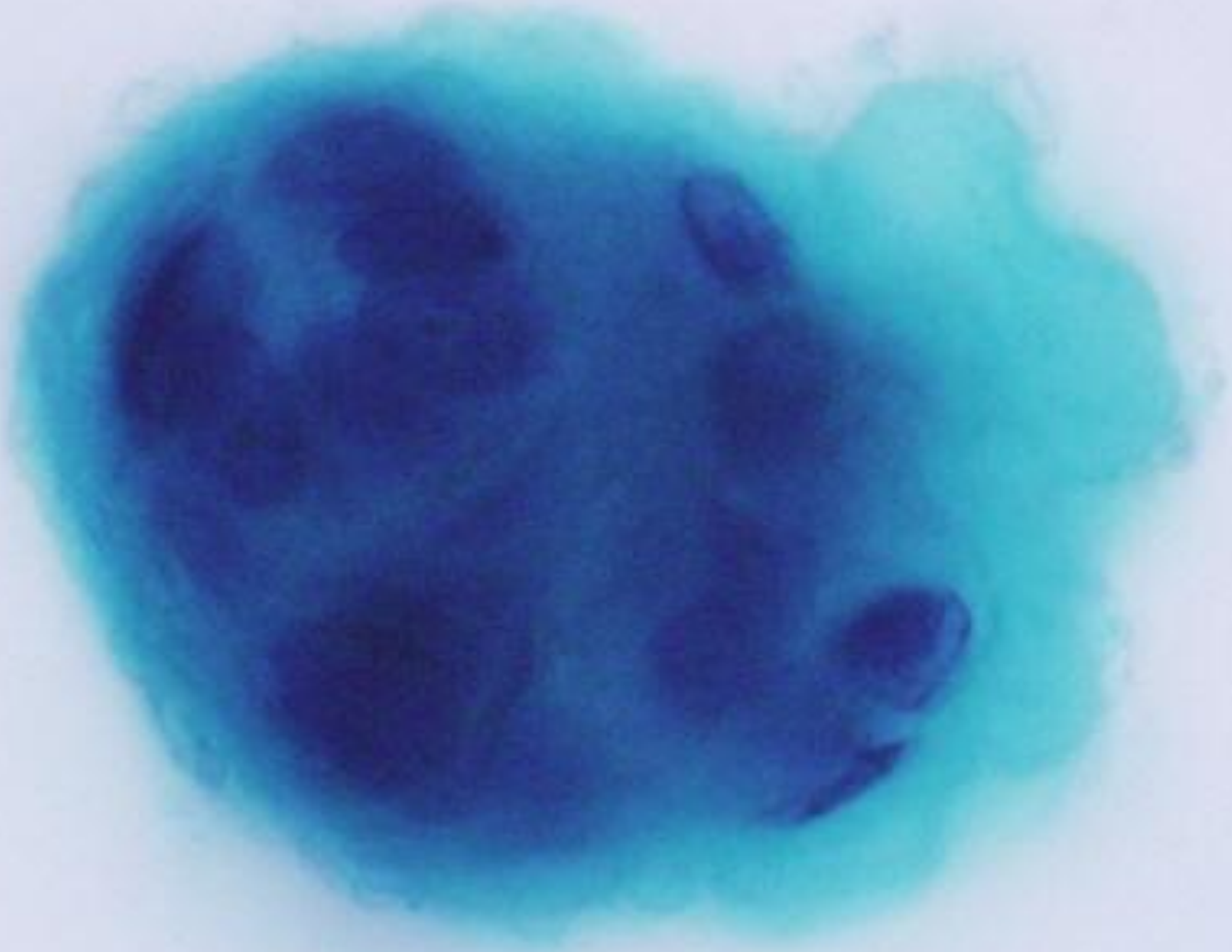

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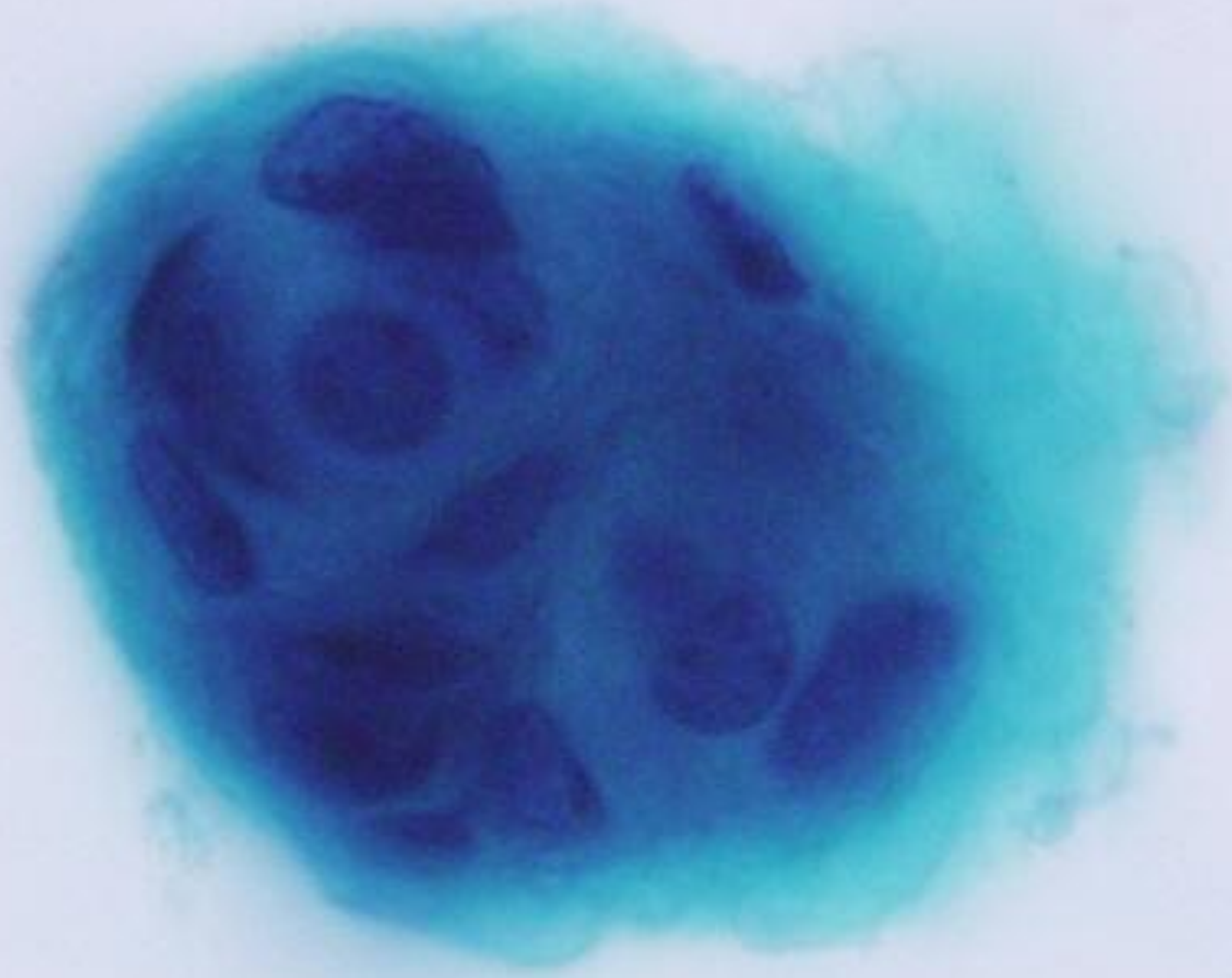

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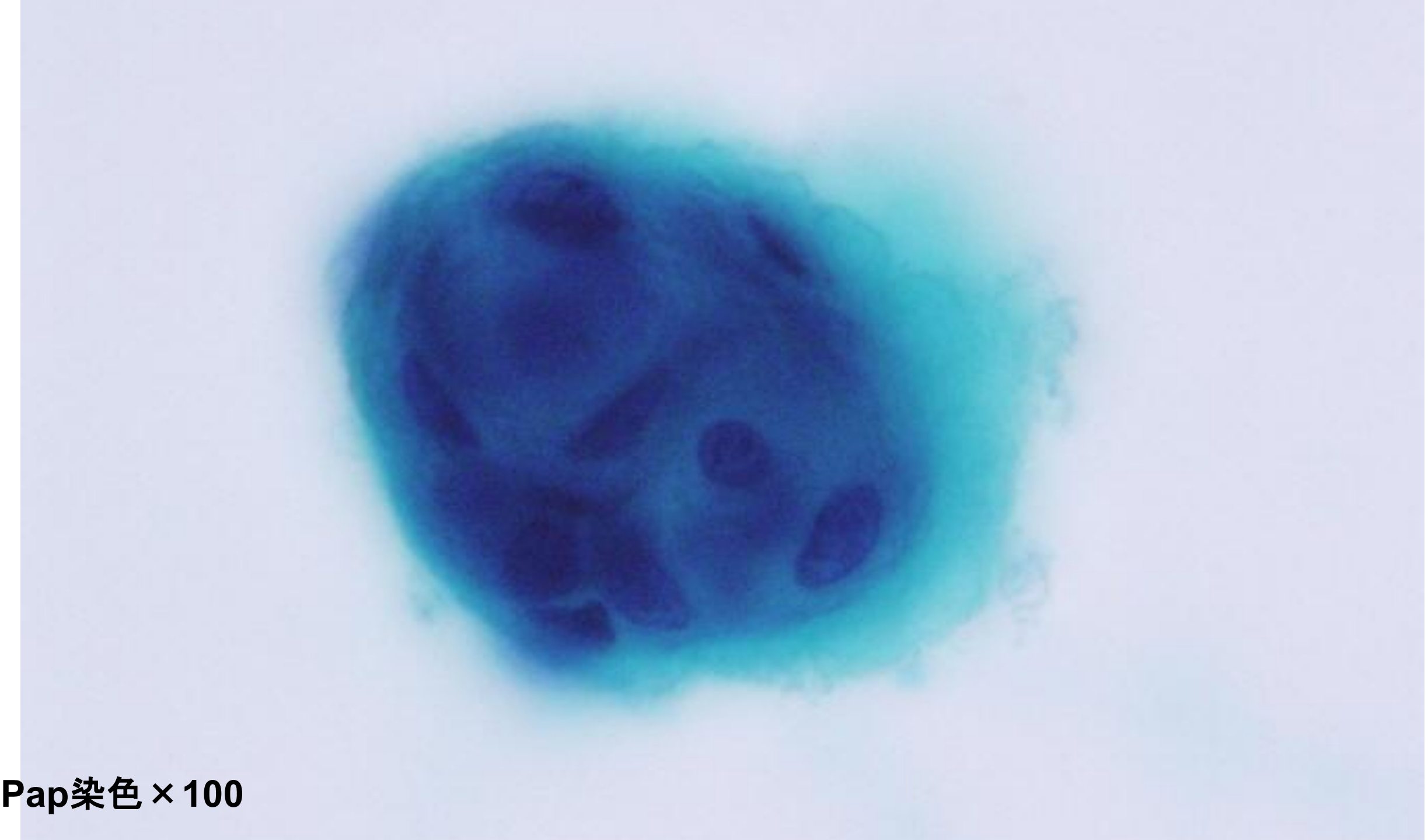

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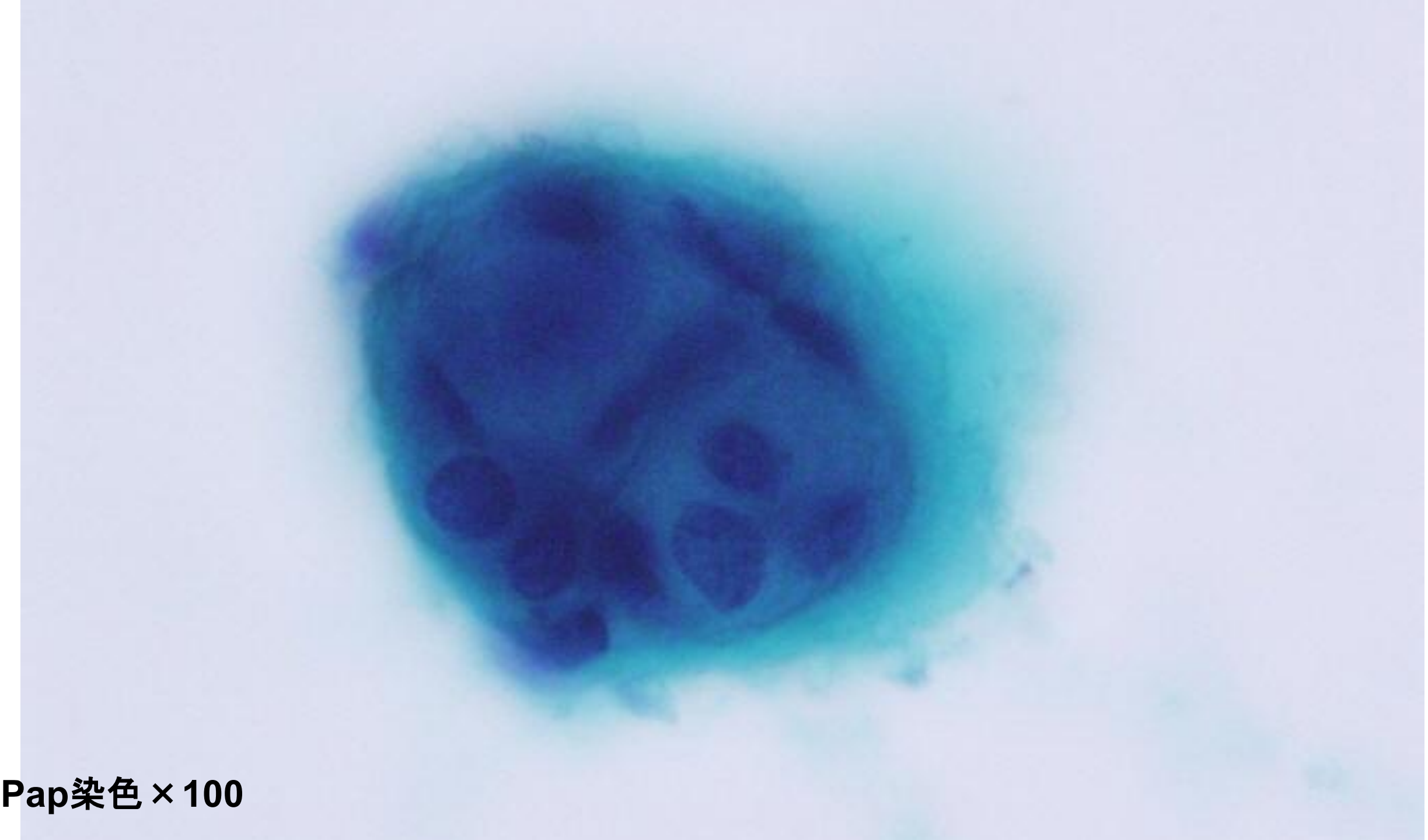

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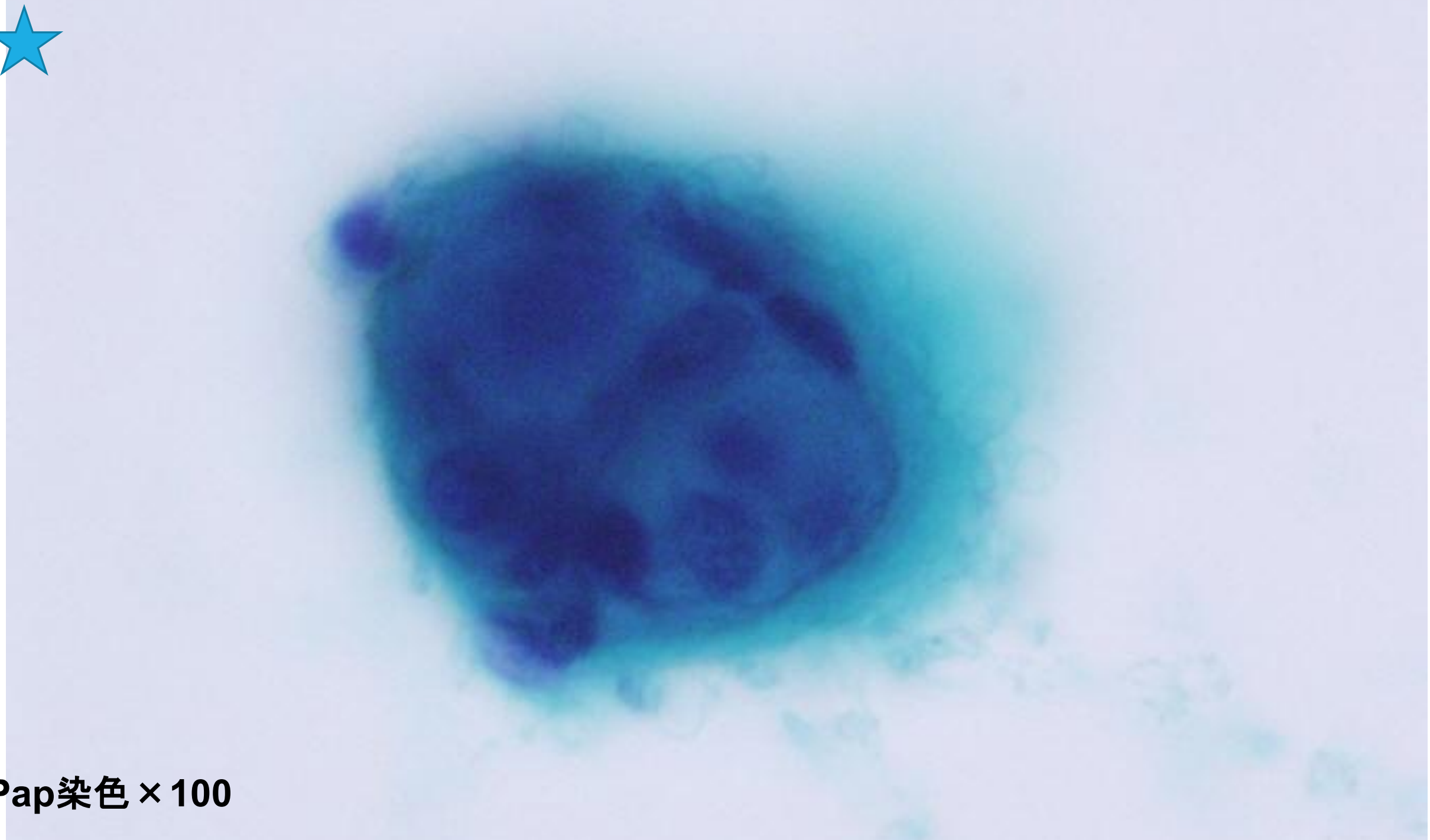
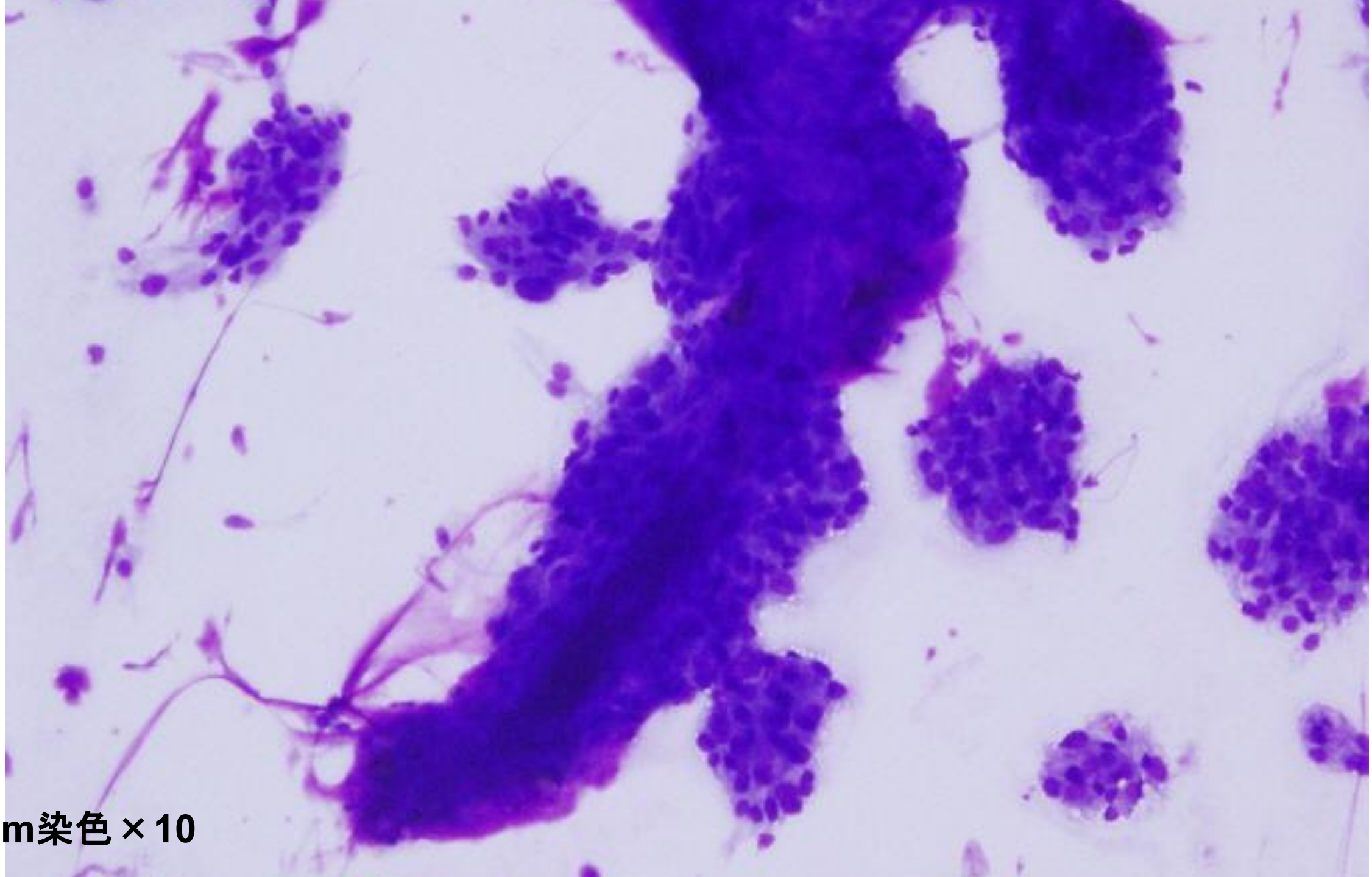


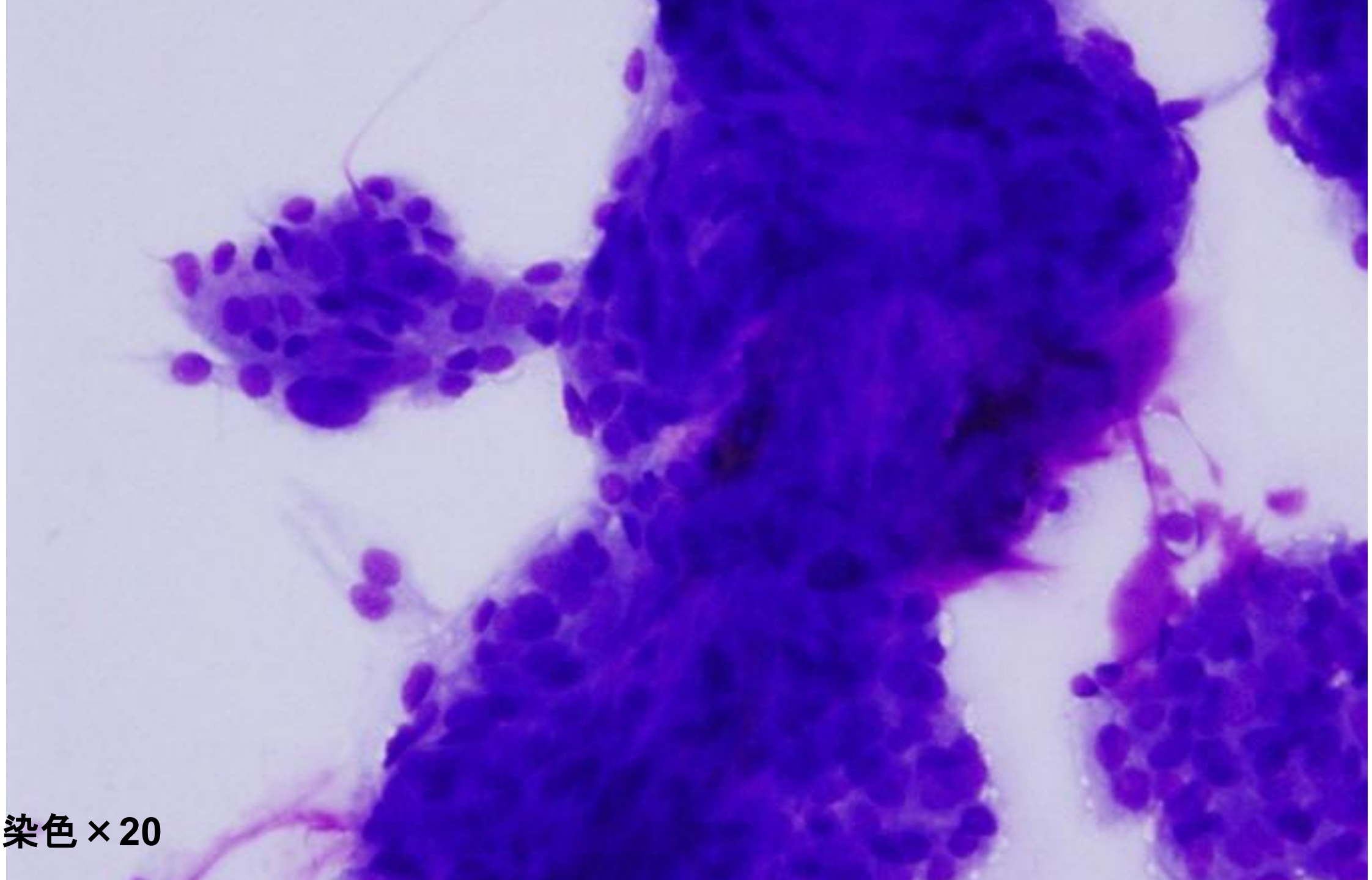
Pap染色×100

症例①

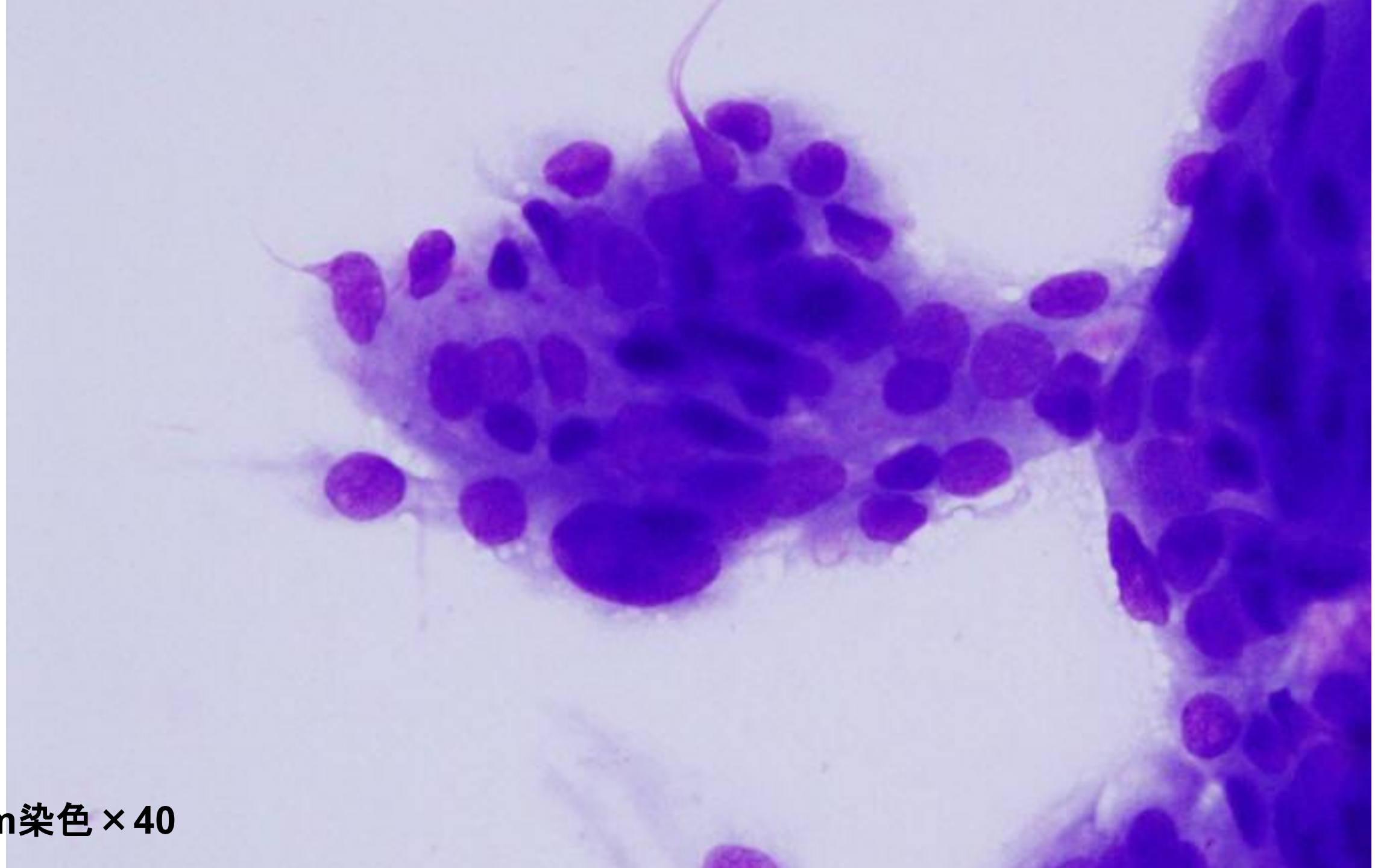
圧挫標本　ギムザ染色



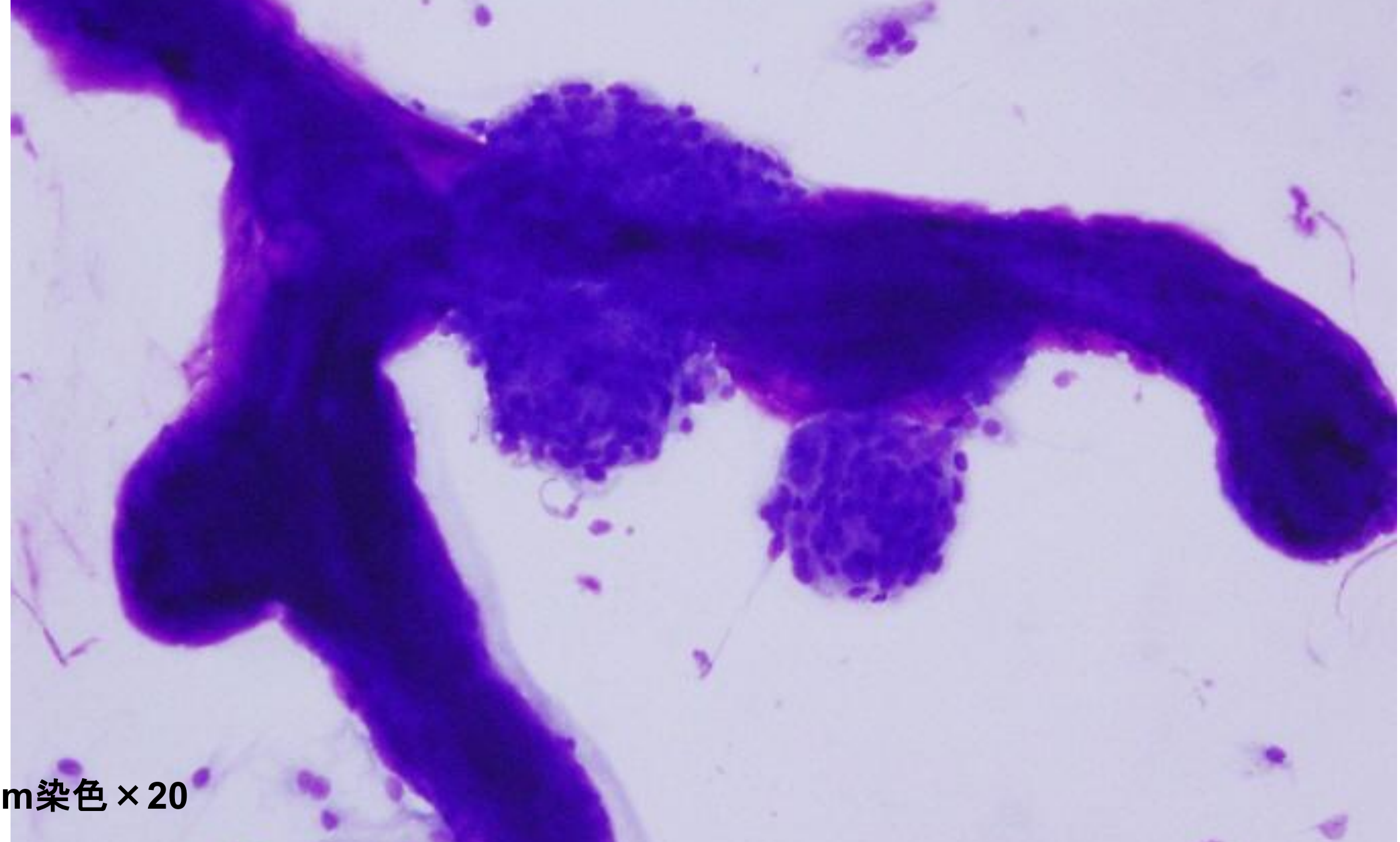
Gim染色×10



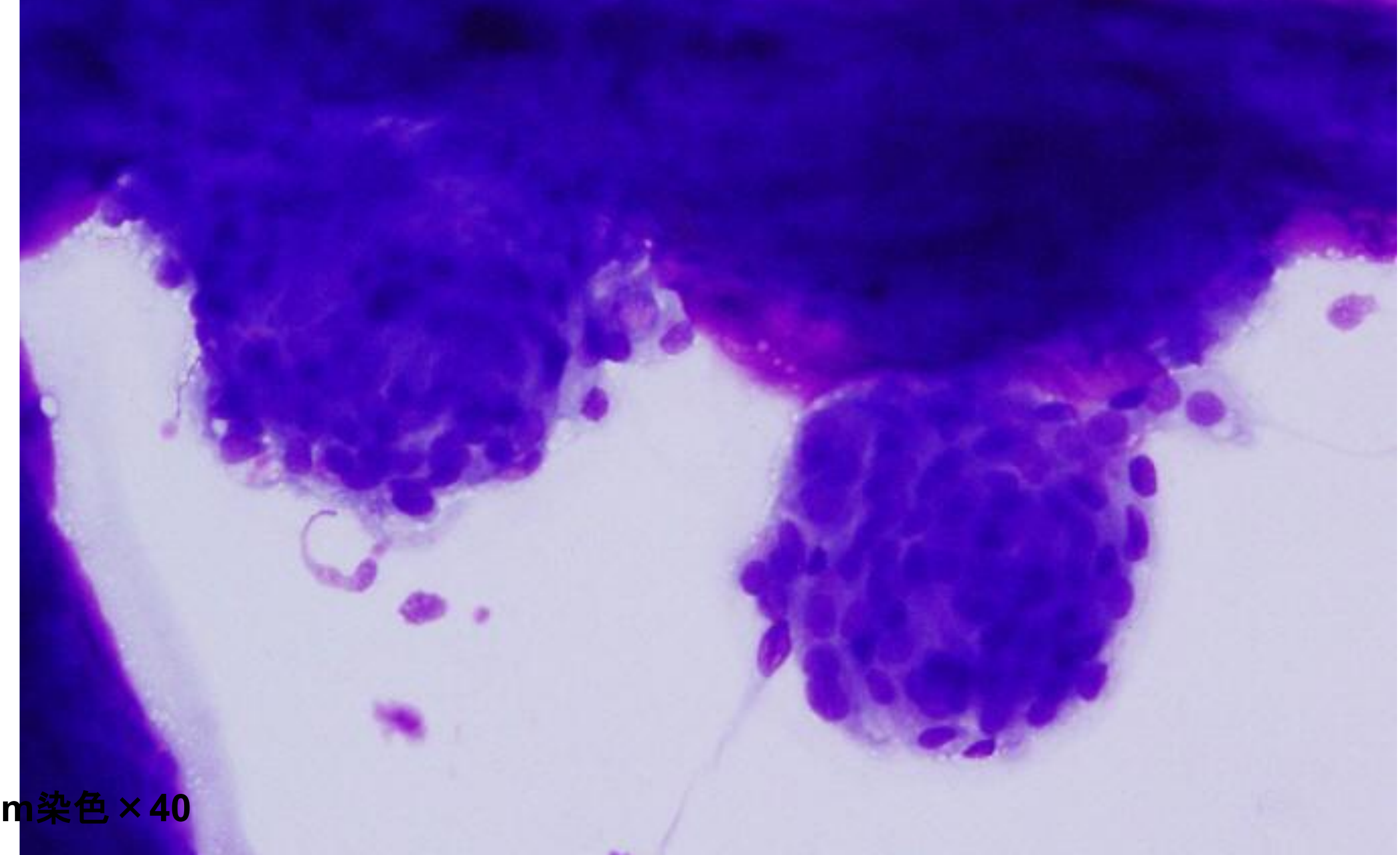
Gim染色×20



Gim染色×40



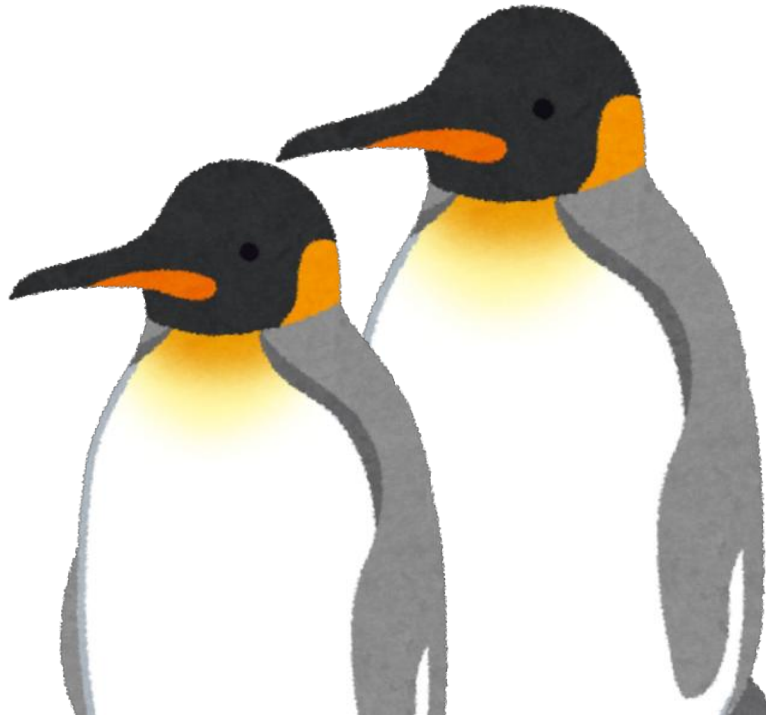
Gim染色×20

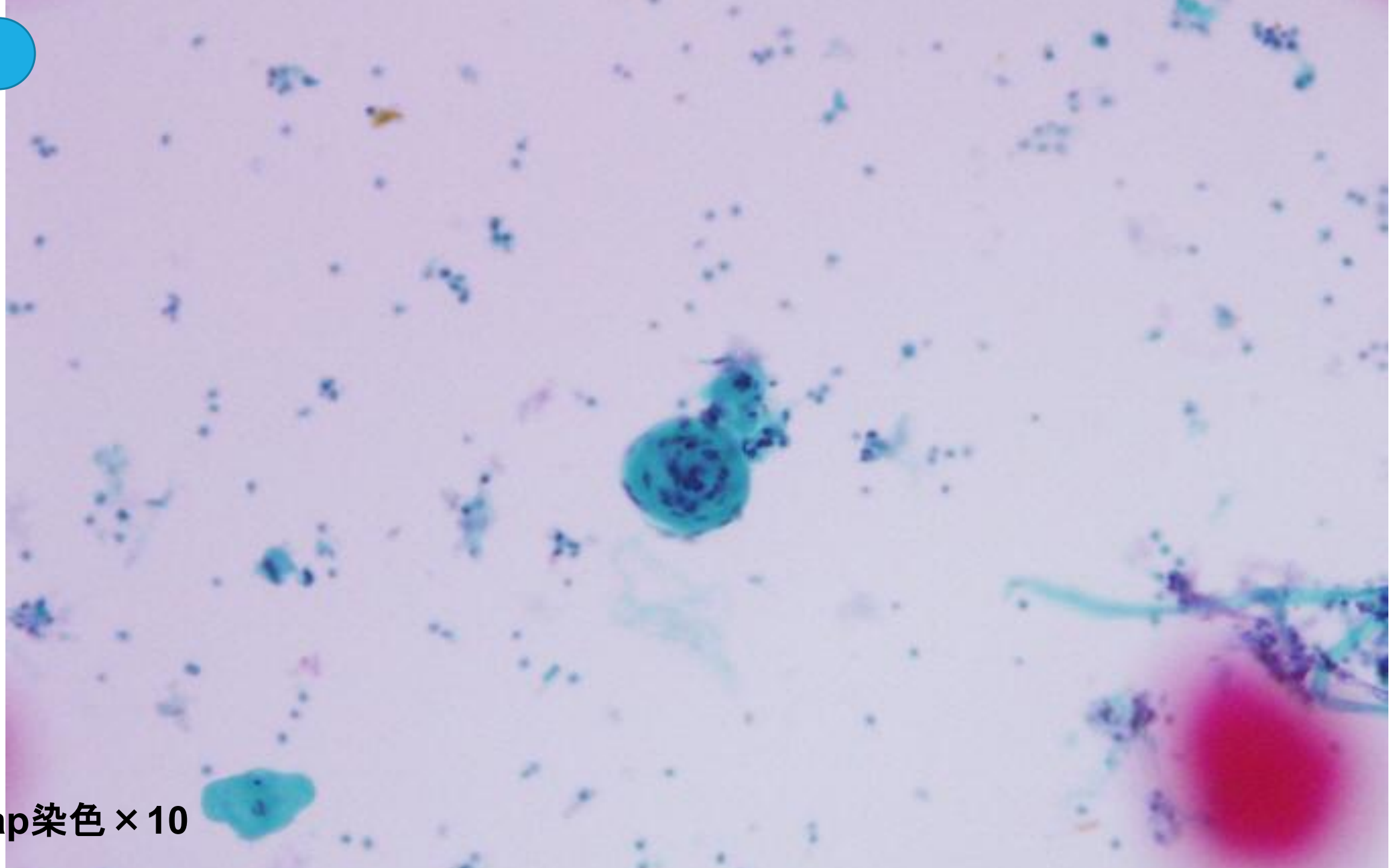


Gim染色×40

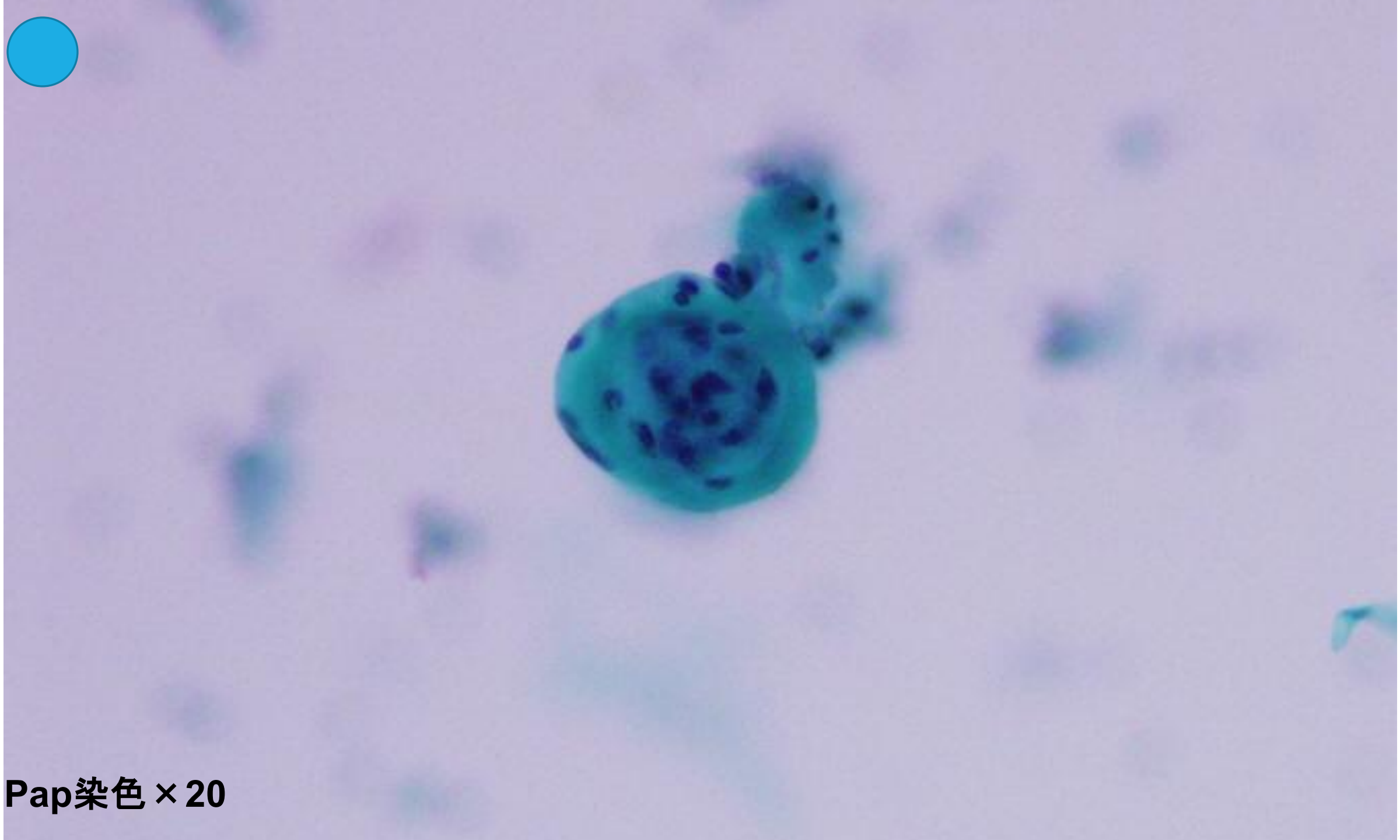
症例①

LBC標本　パパニコロウ染色





Pap染色×10



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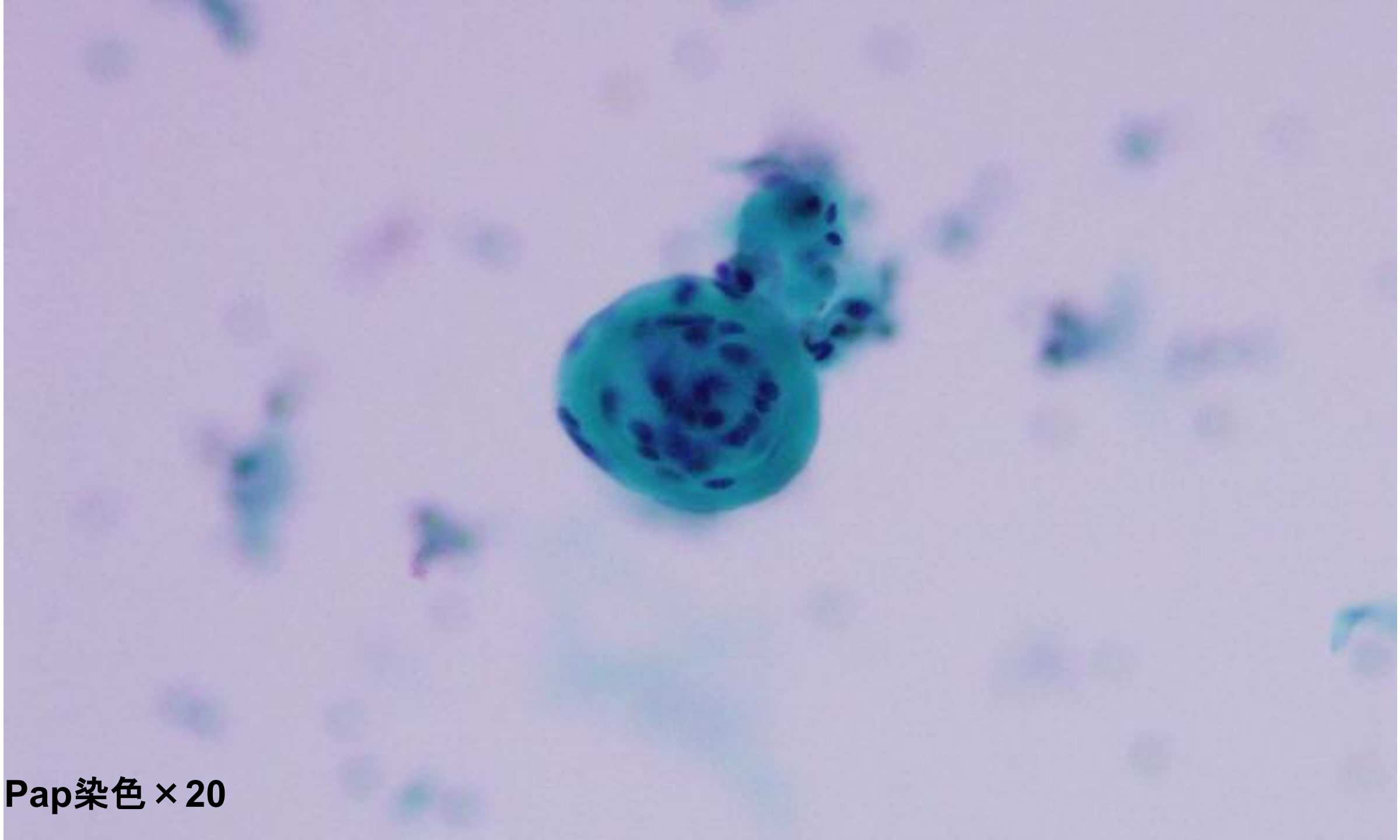
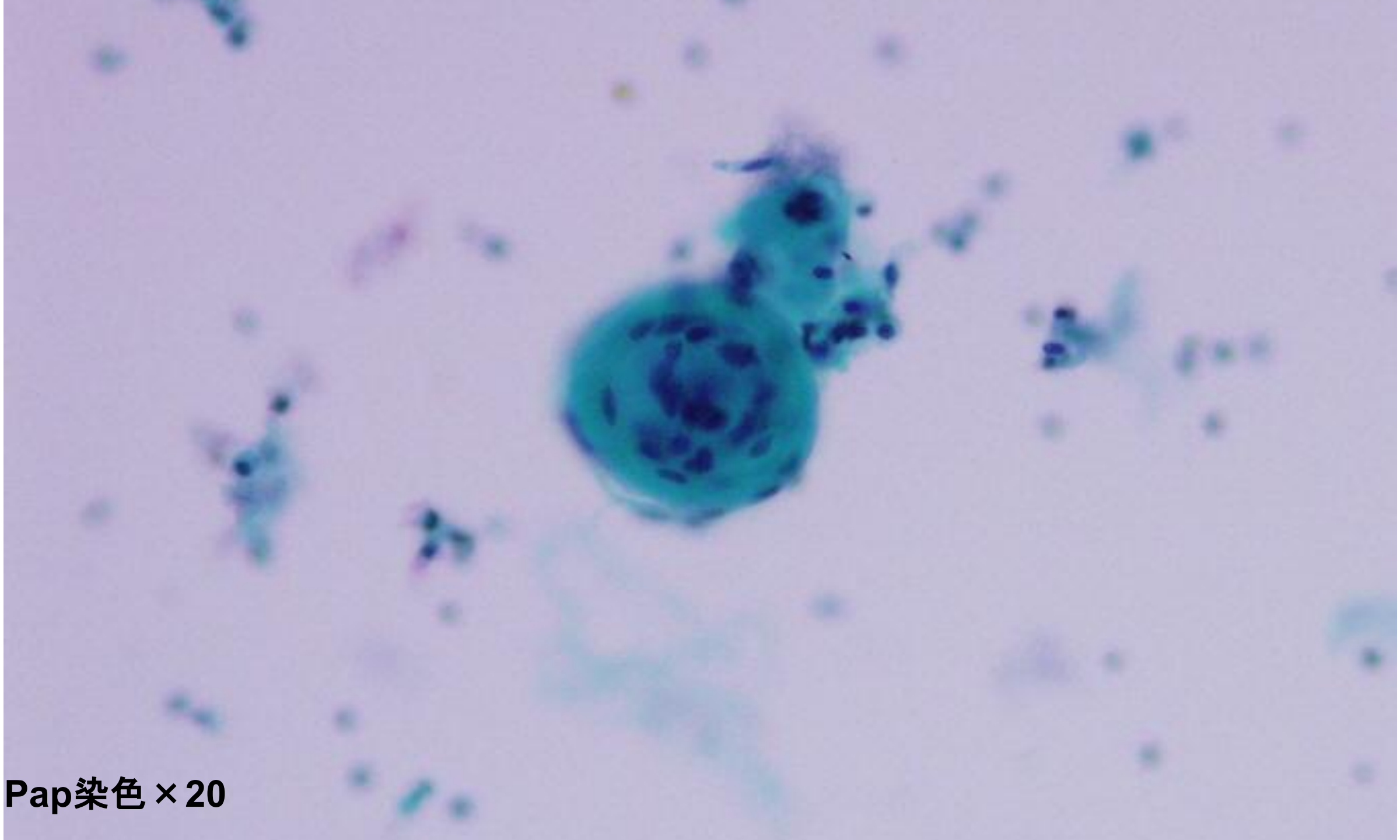


Pap染色×20

Pap染色×20



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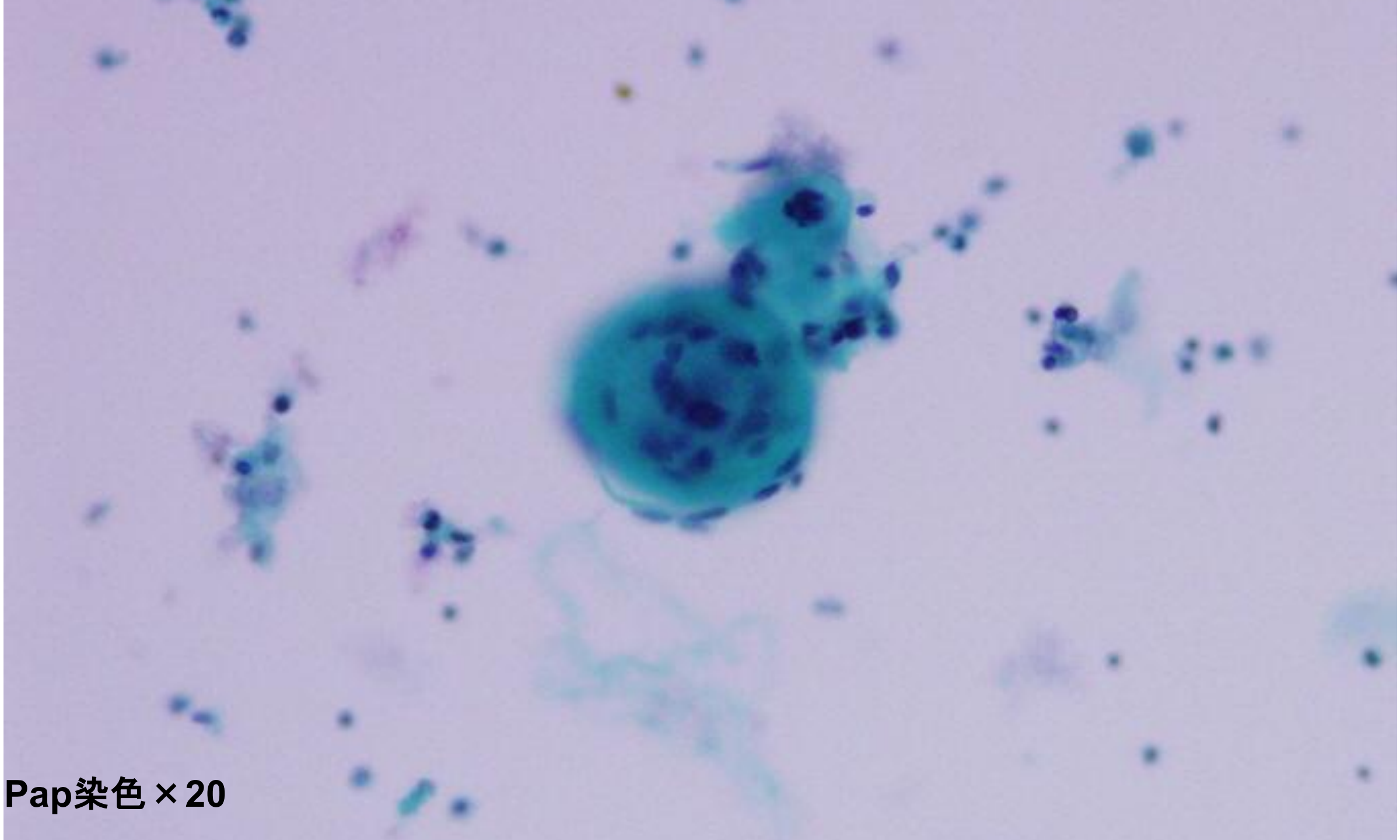

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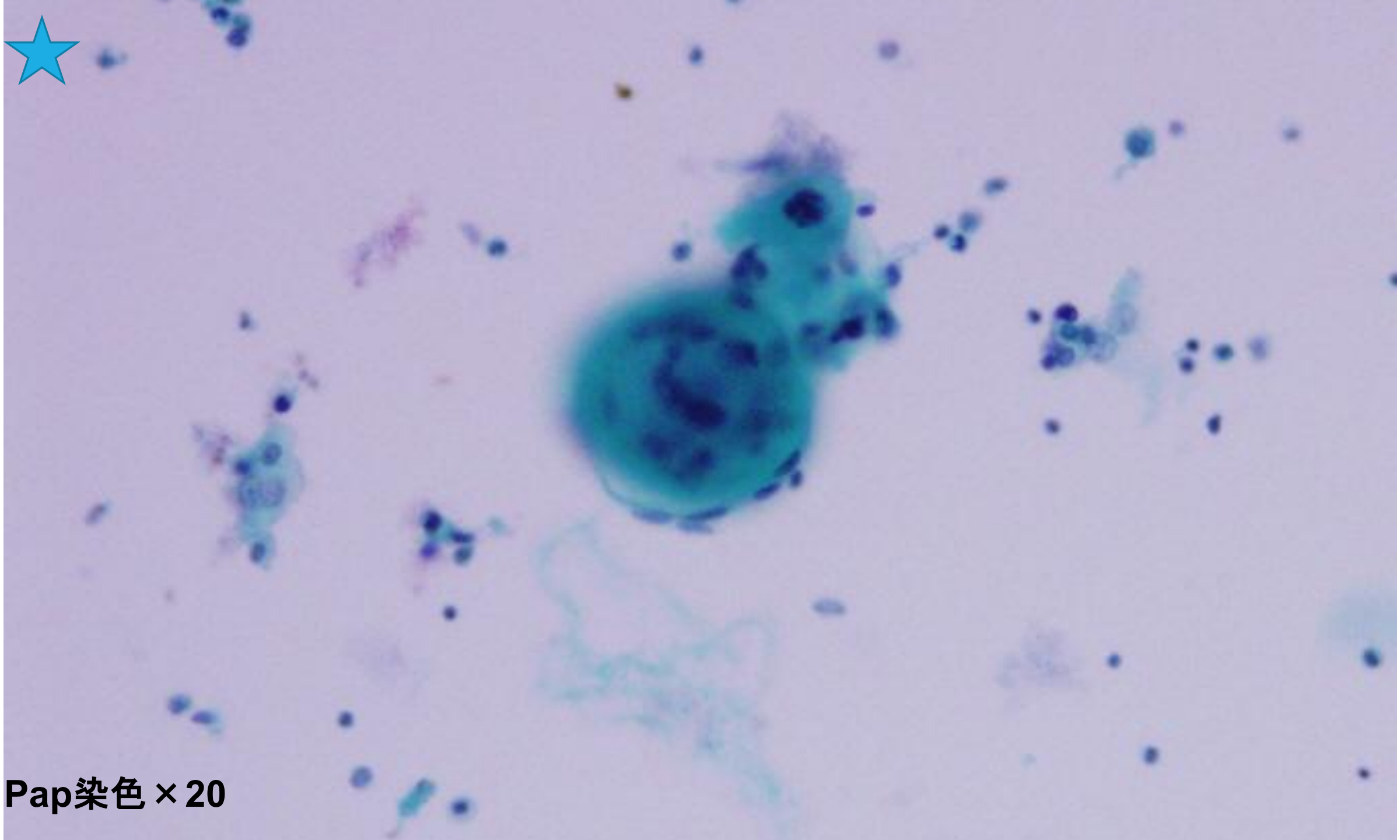

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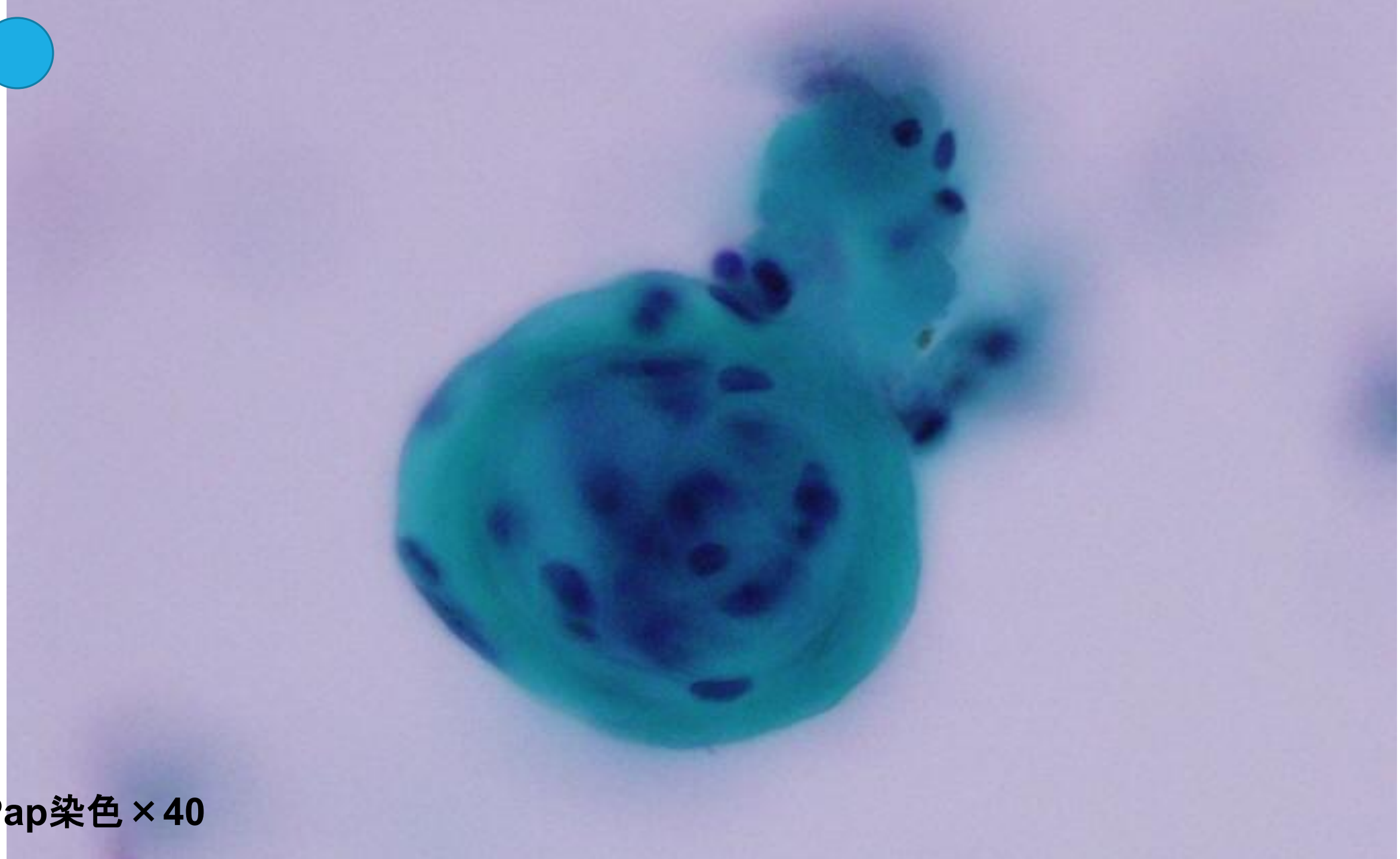

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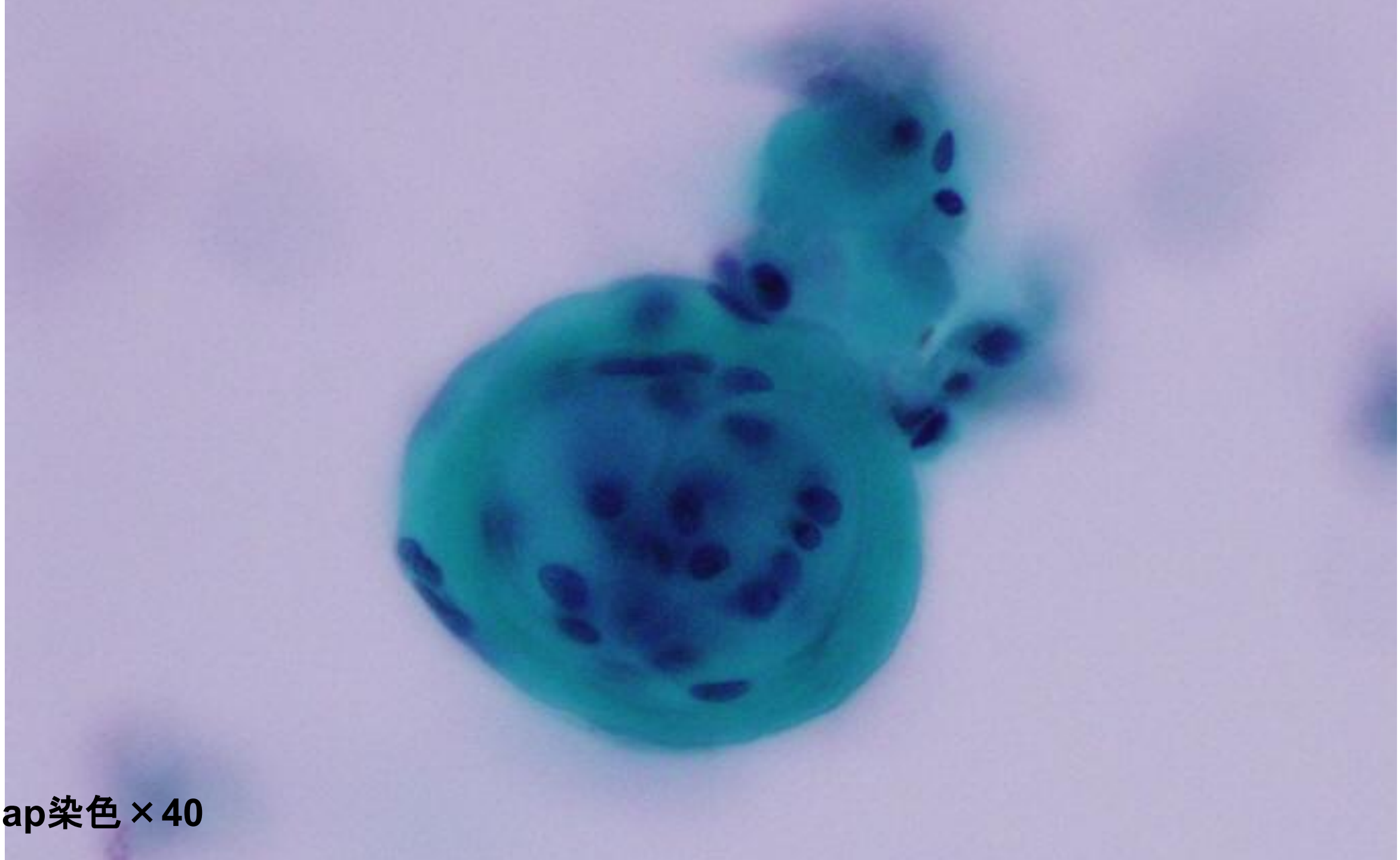

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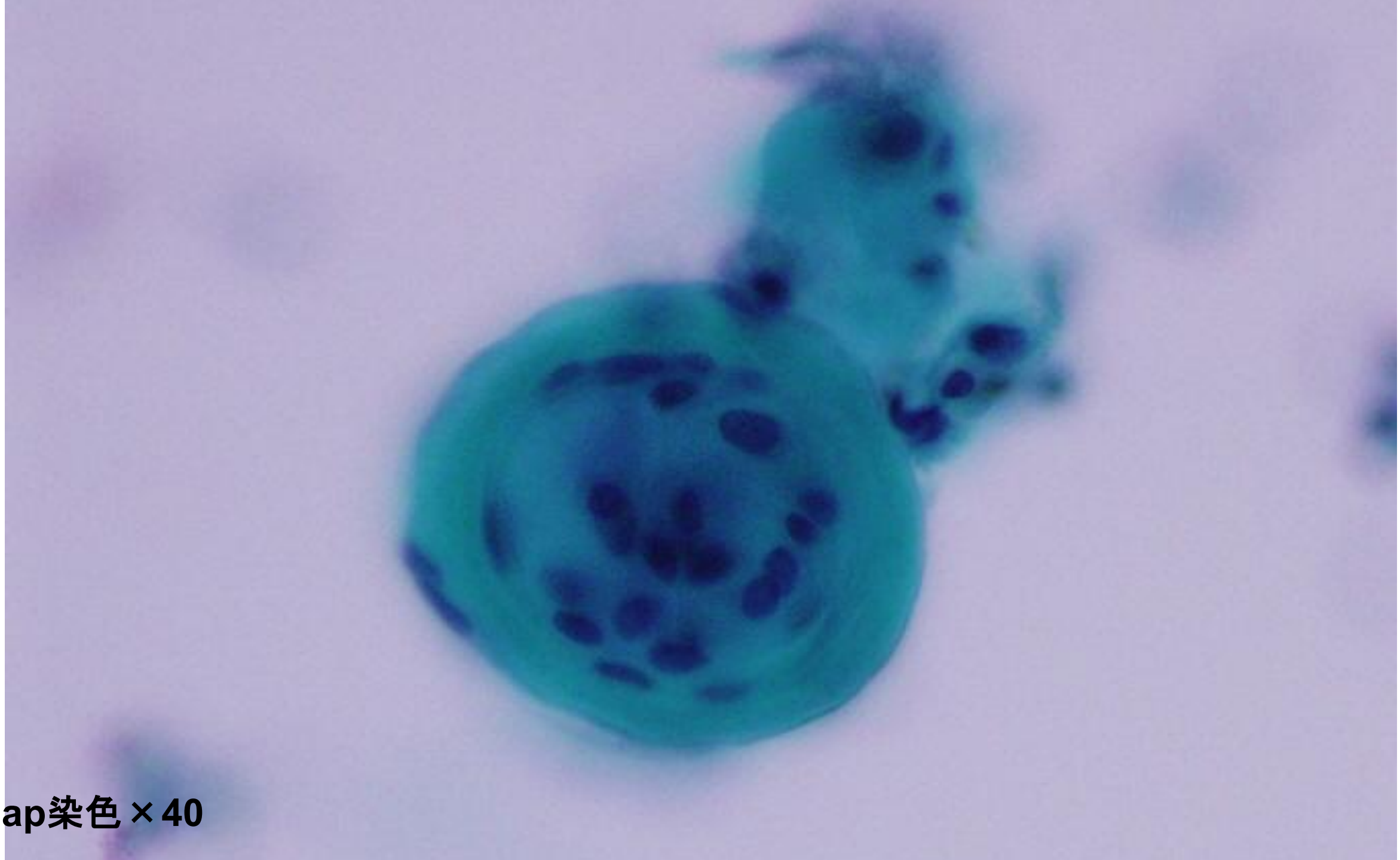

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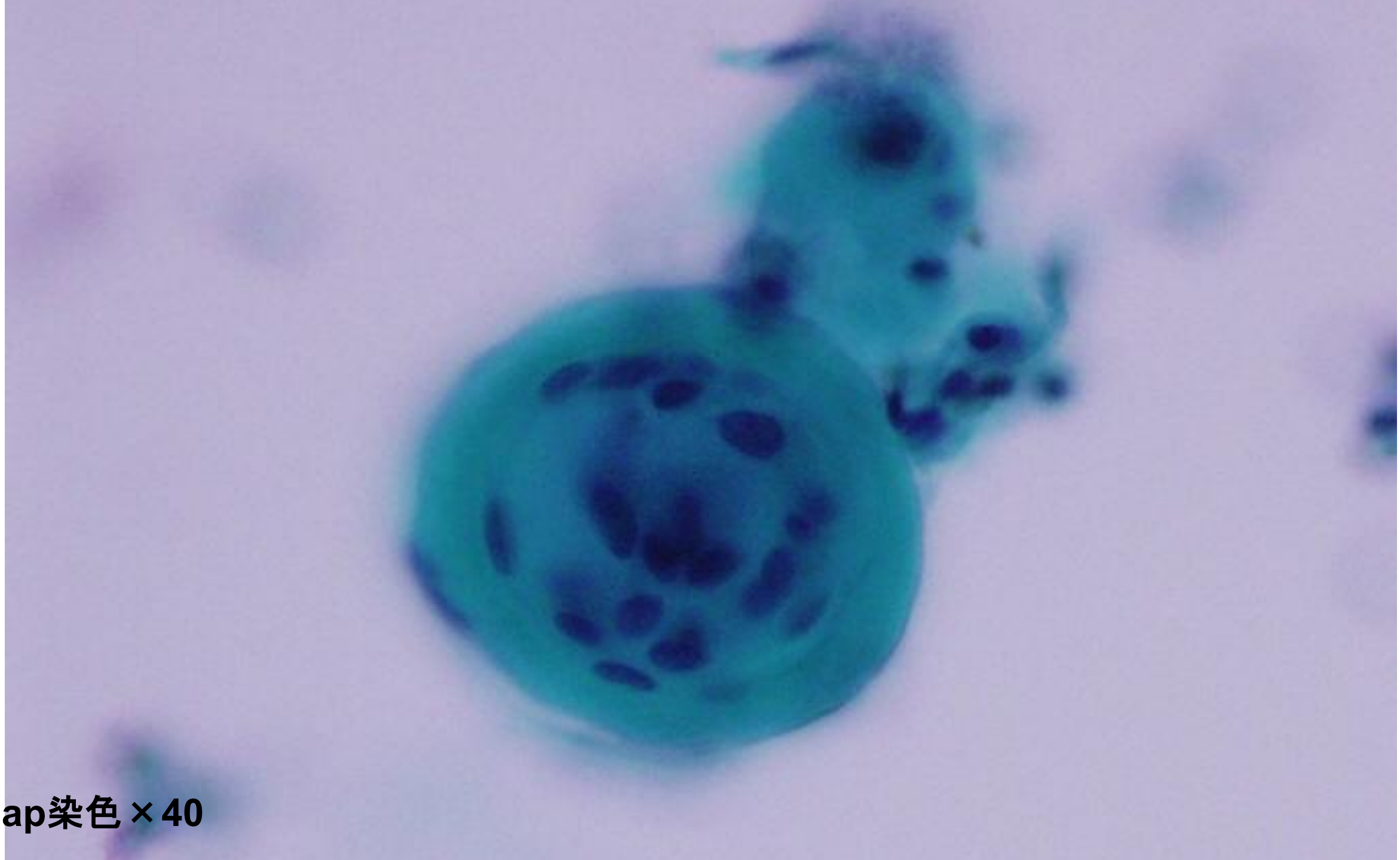

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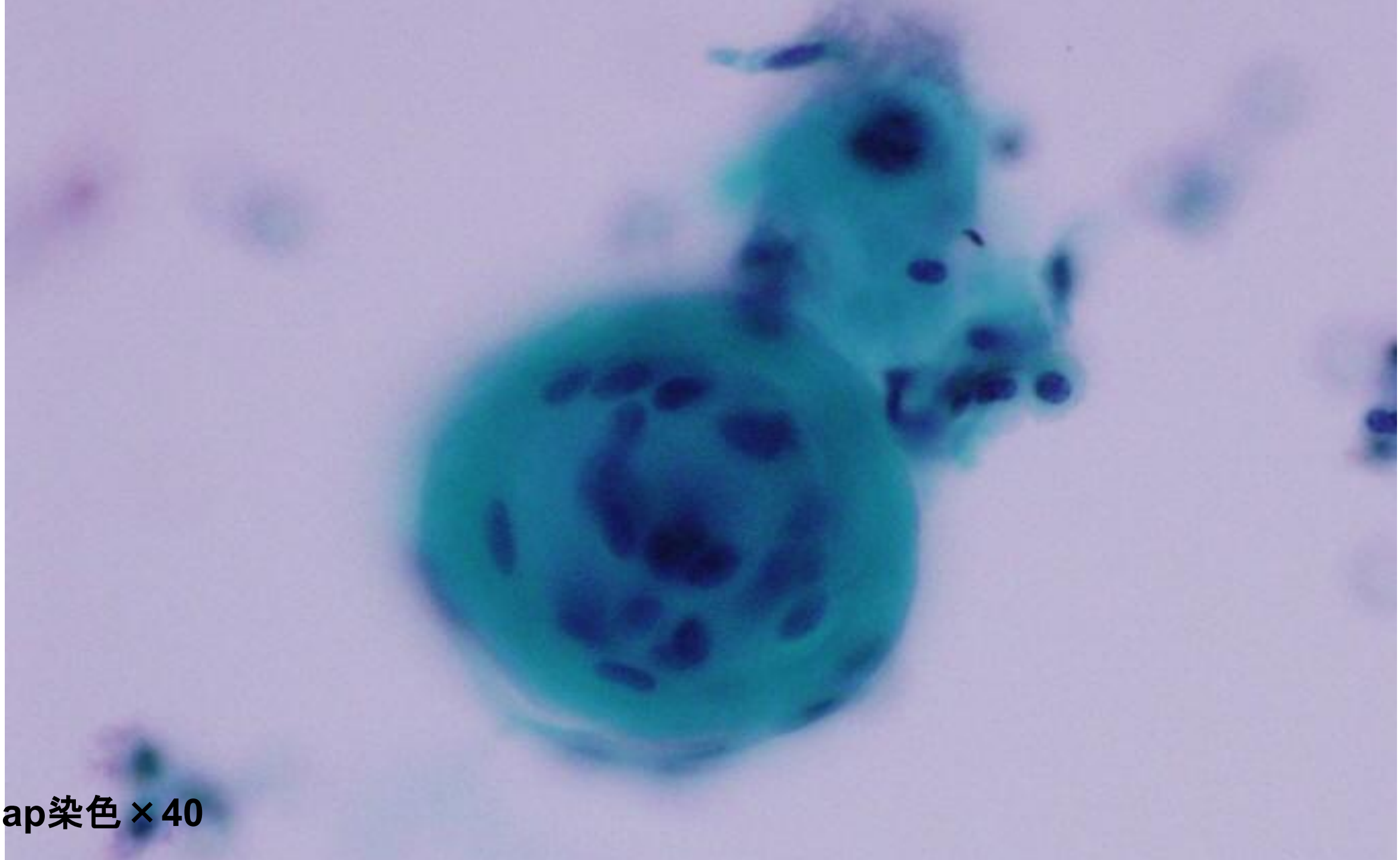

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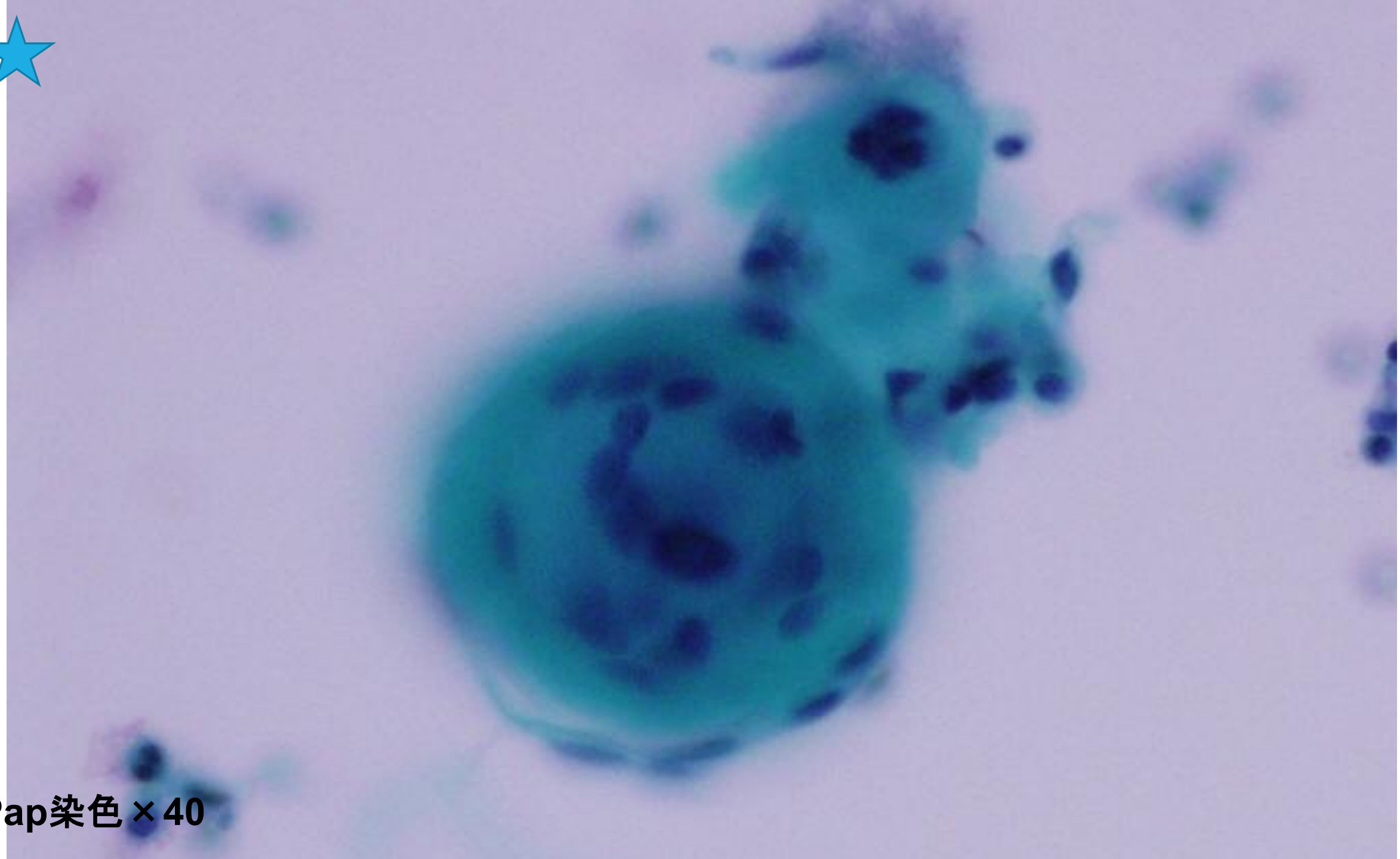

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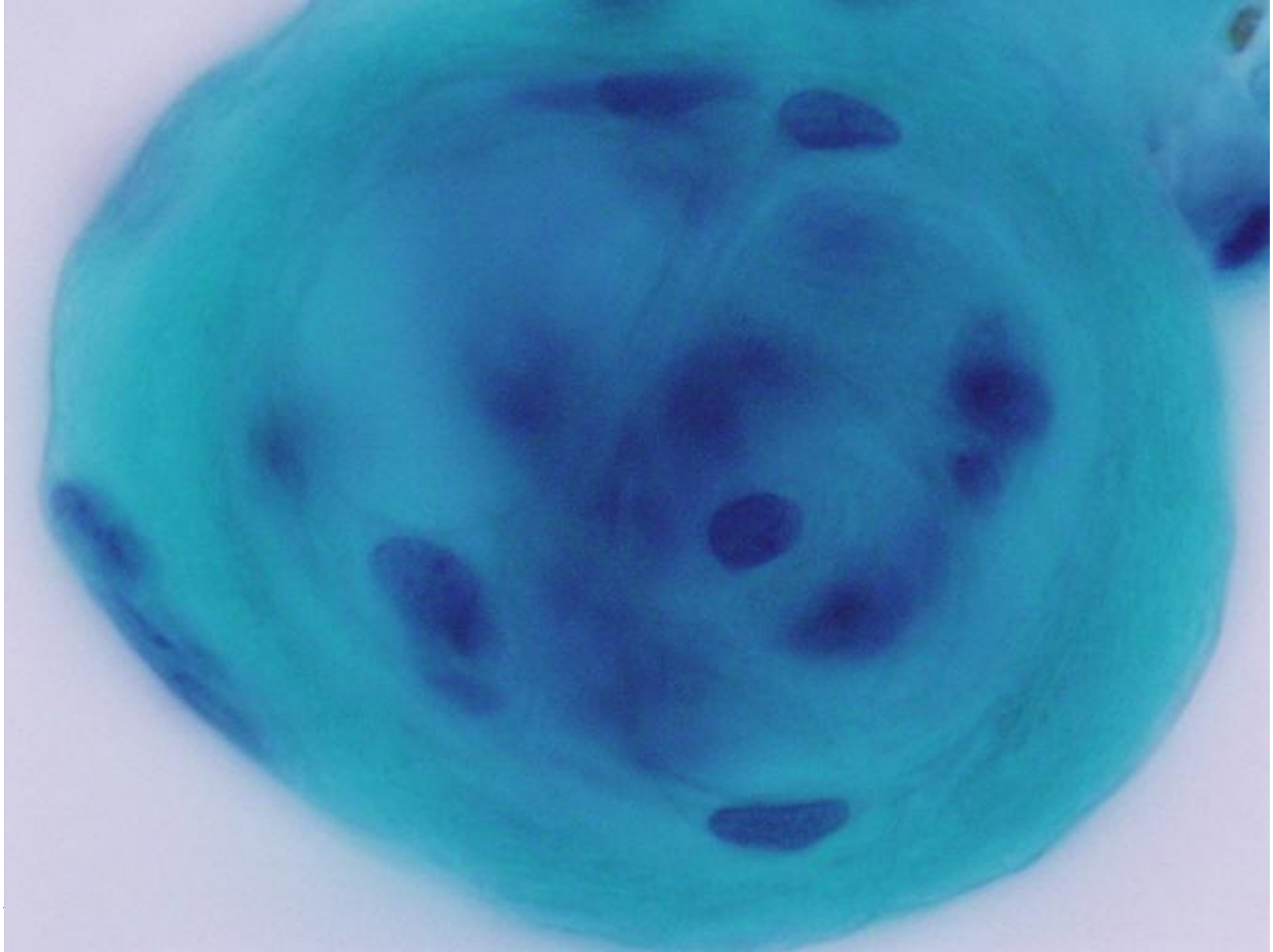

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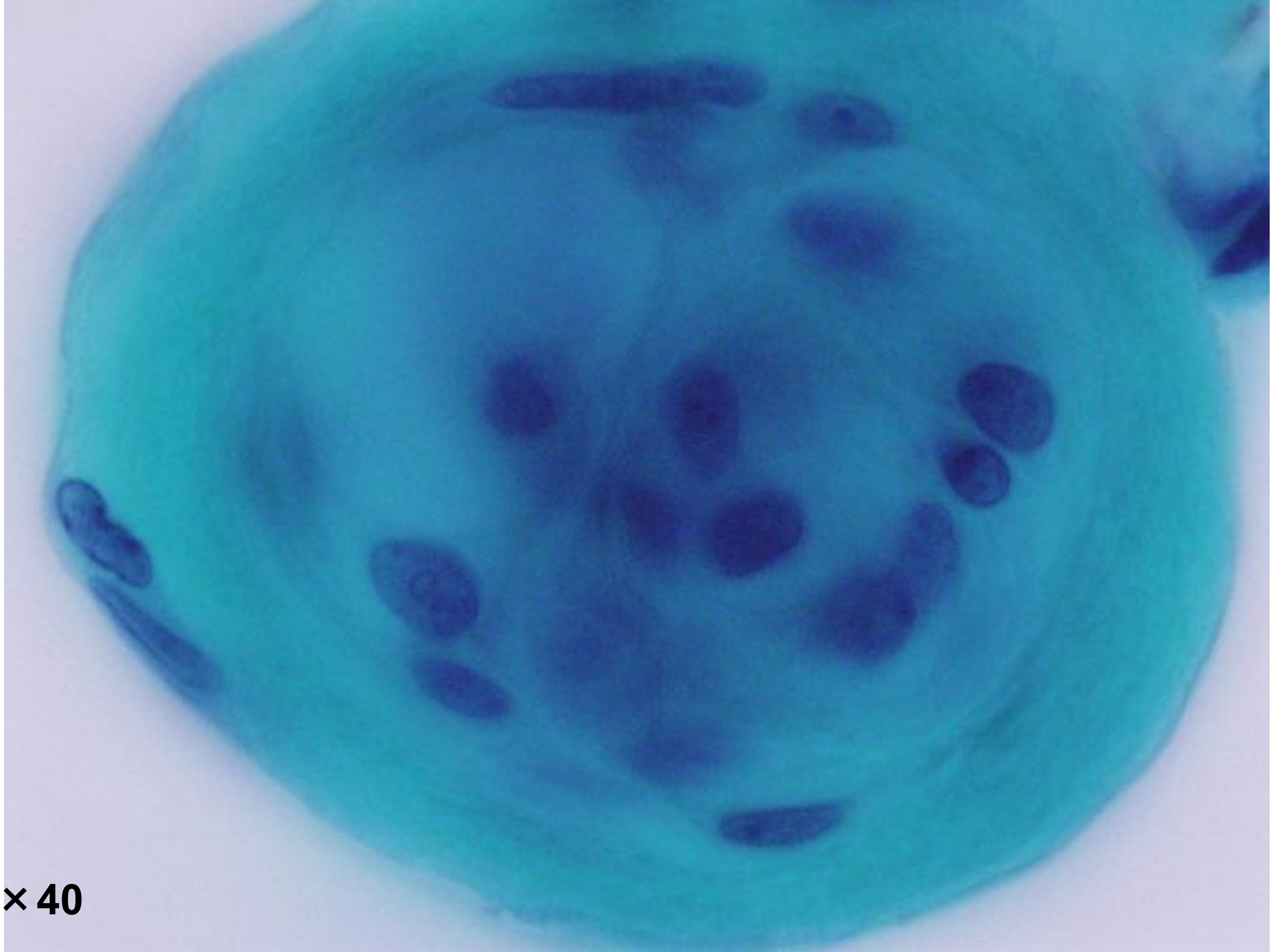

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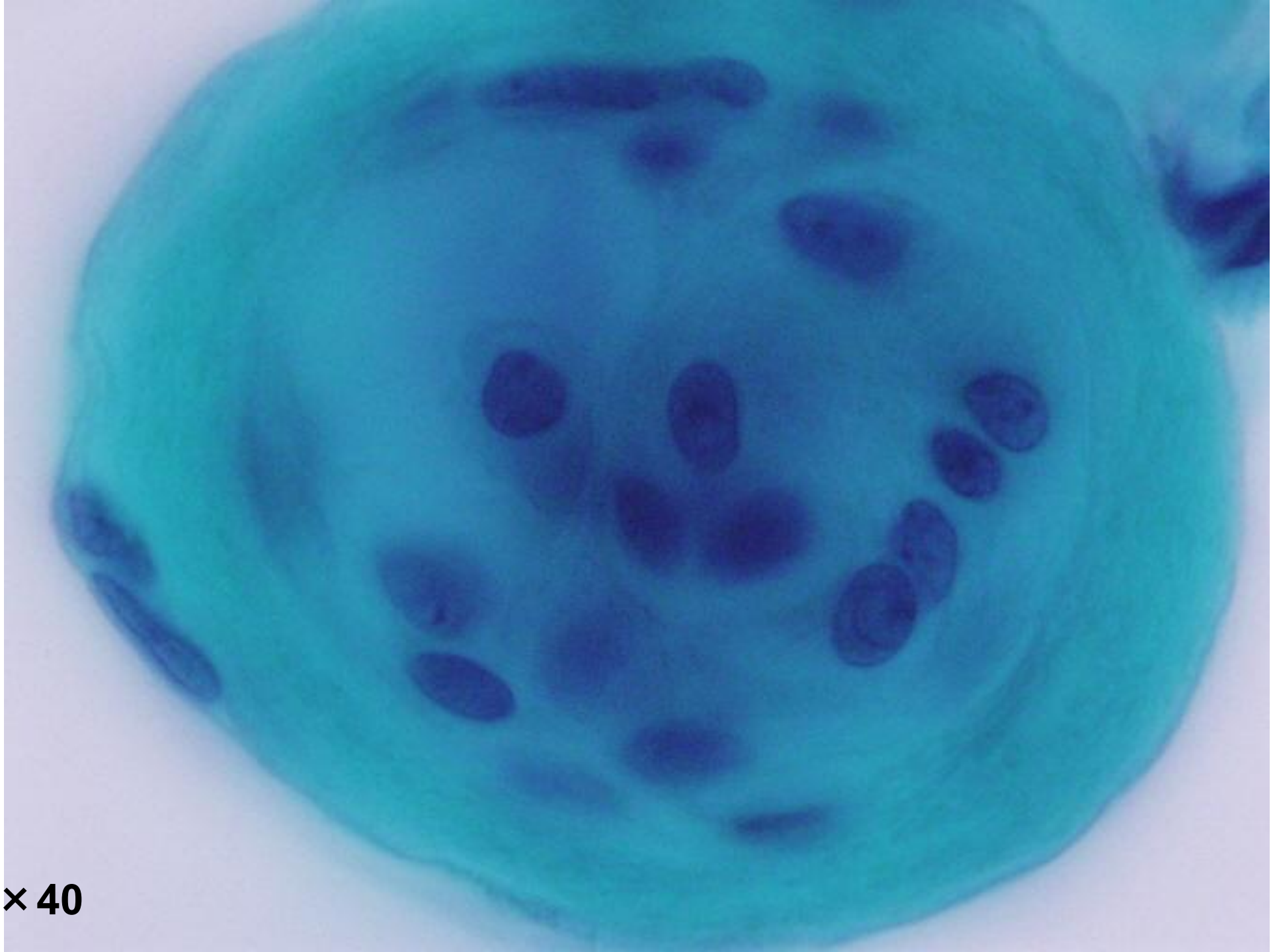

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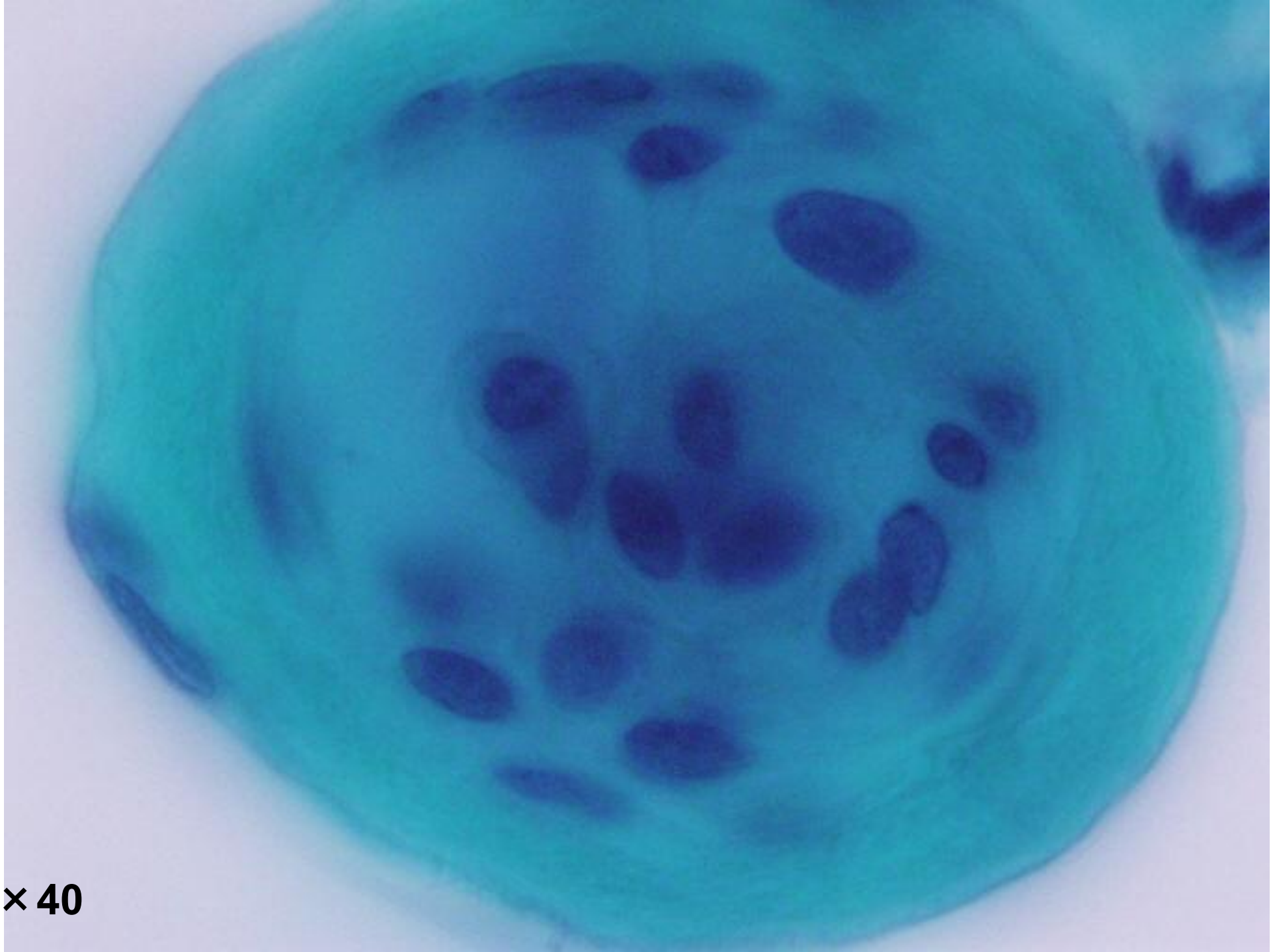

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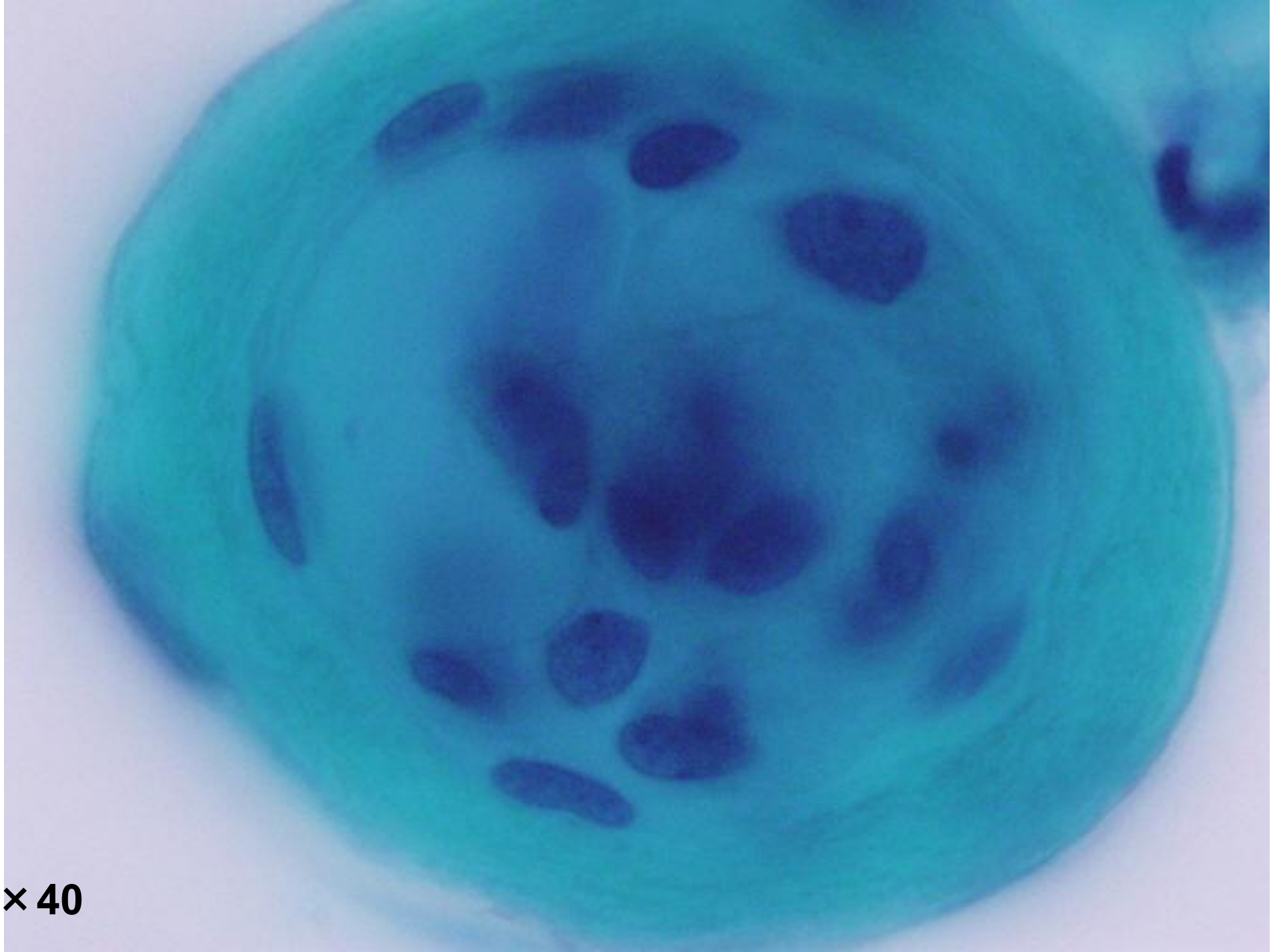

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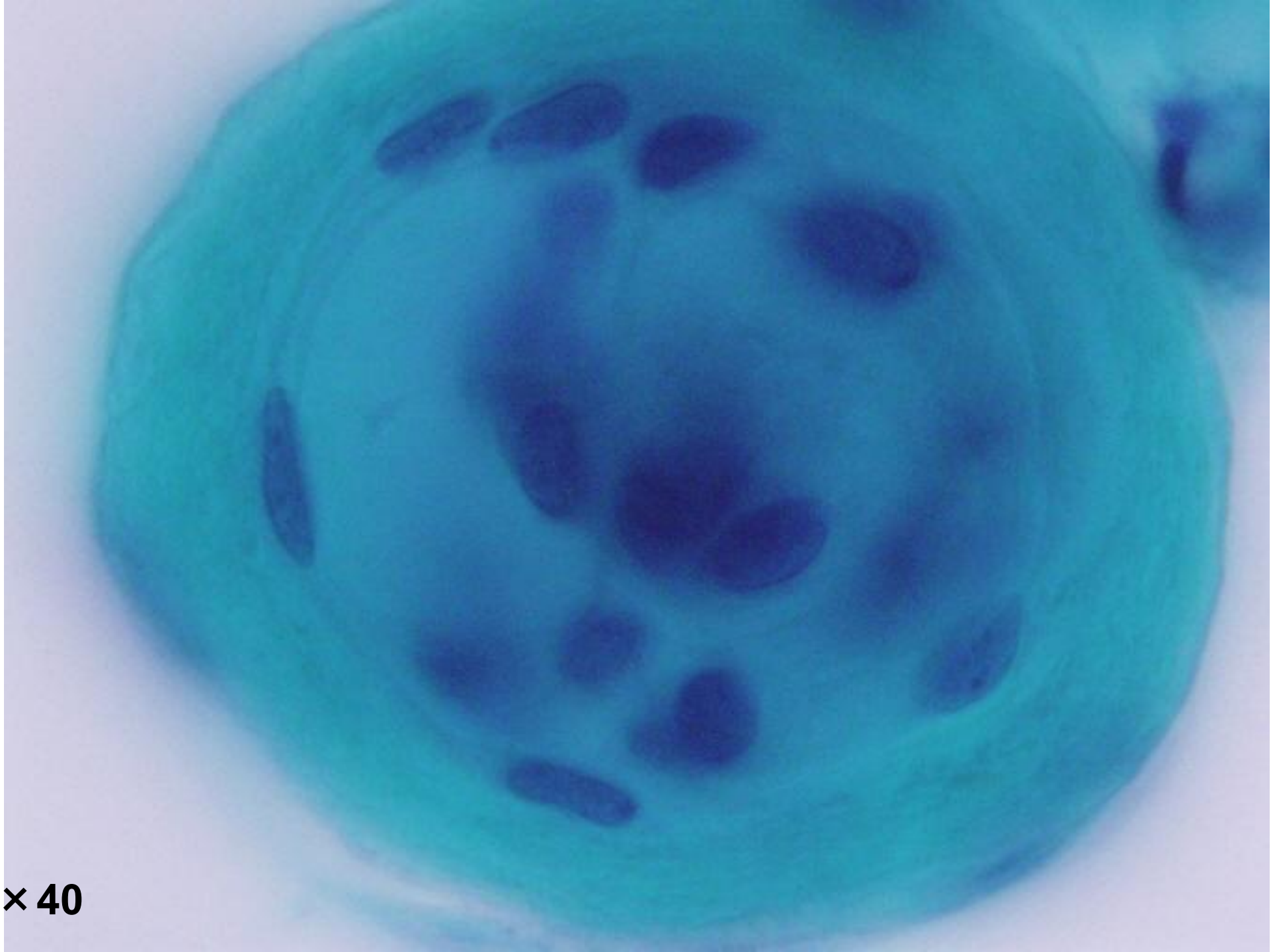

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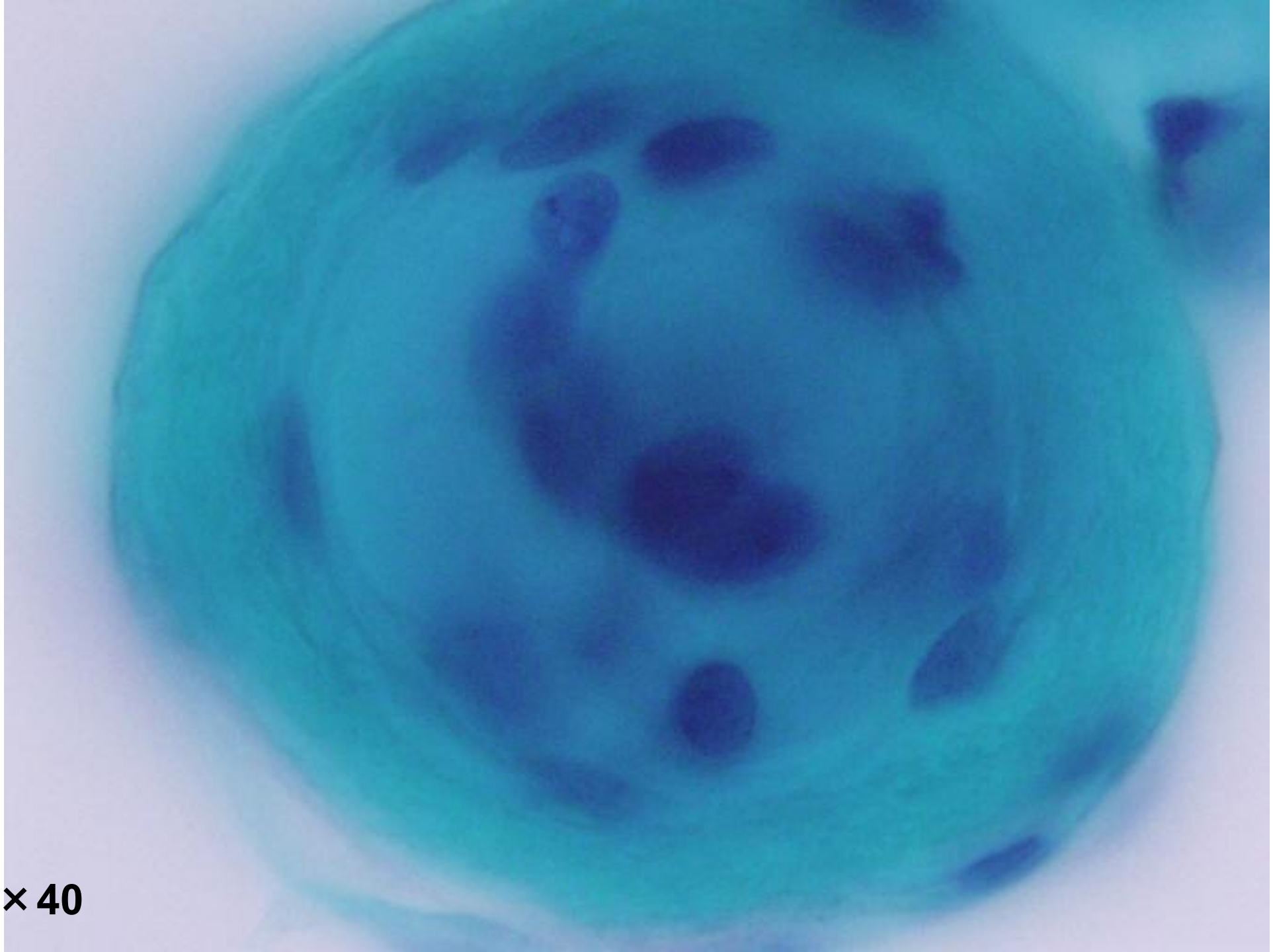

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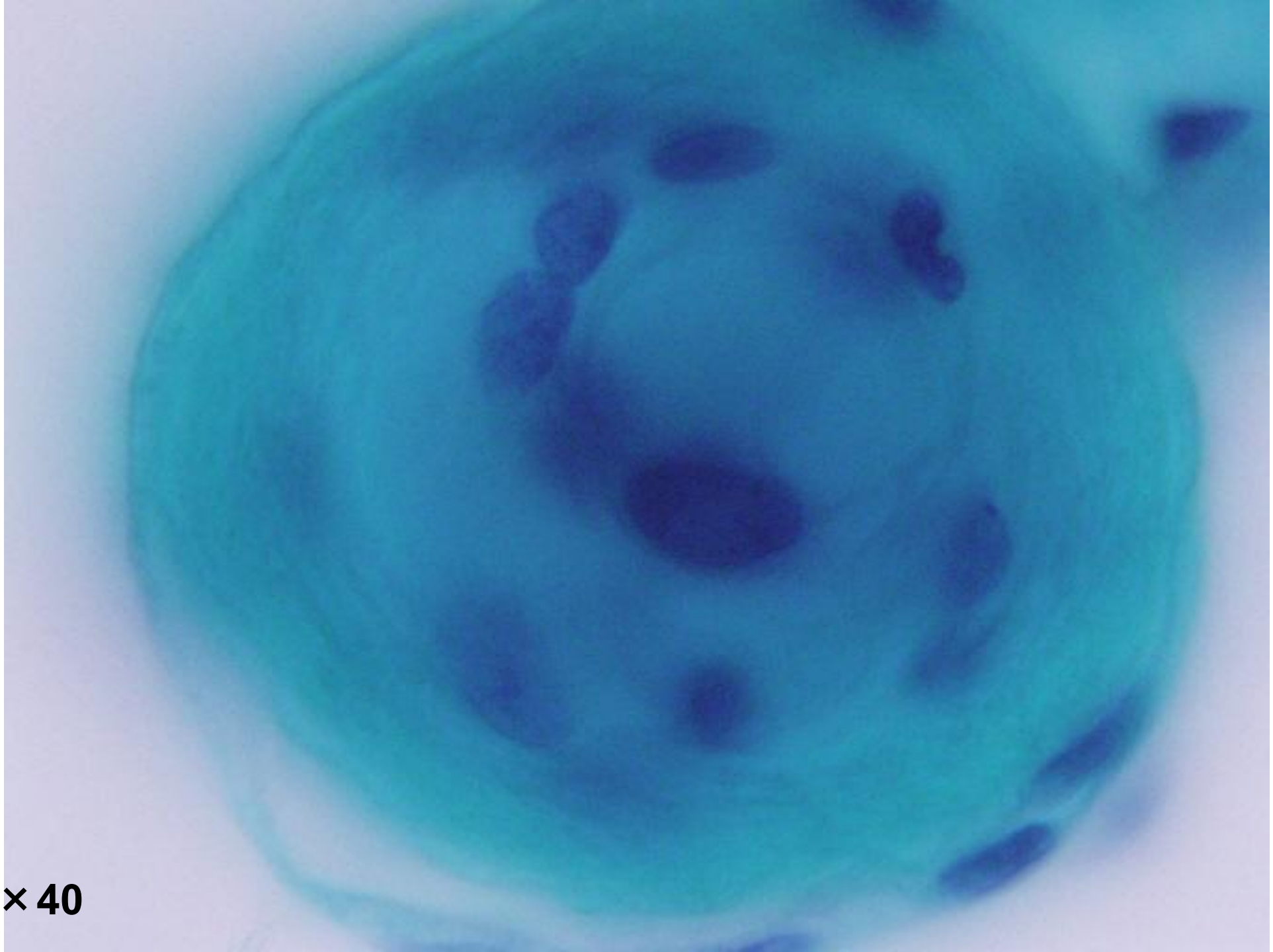

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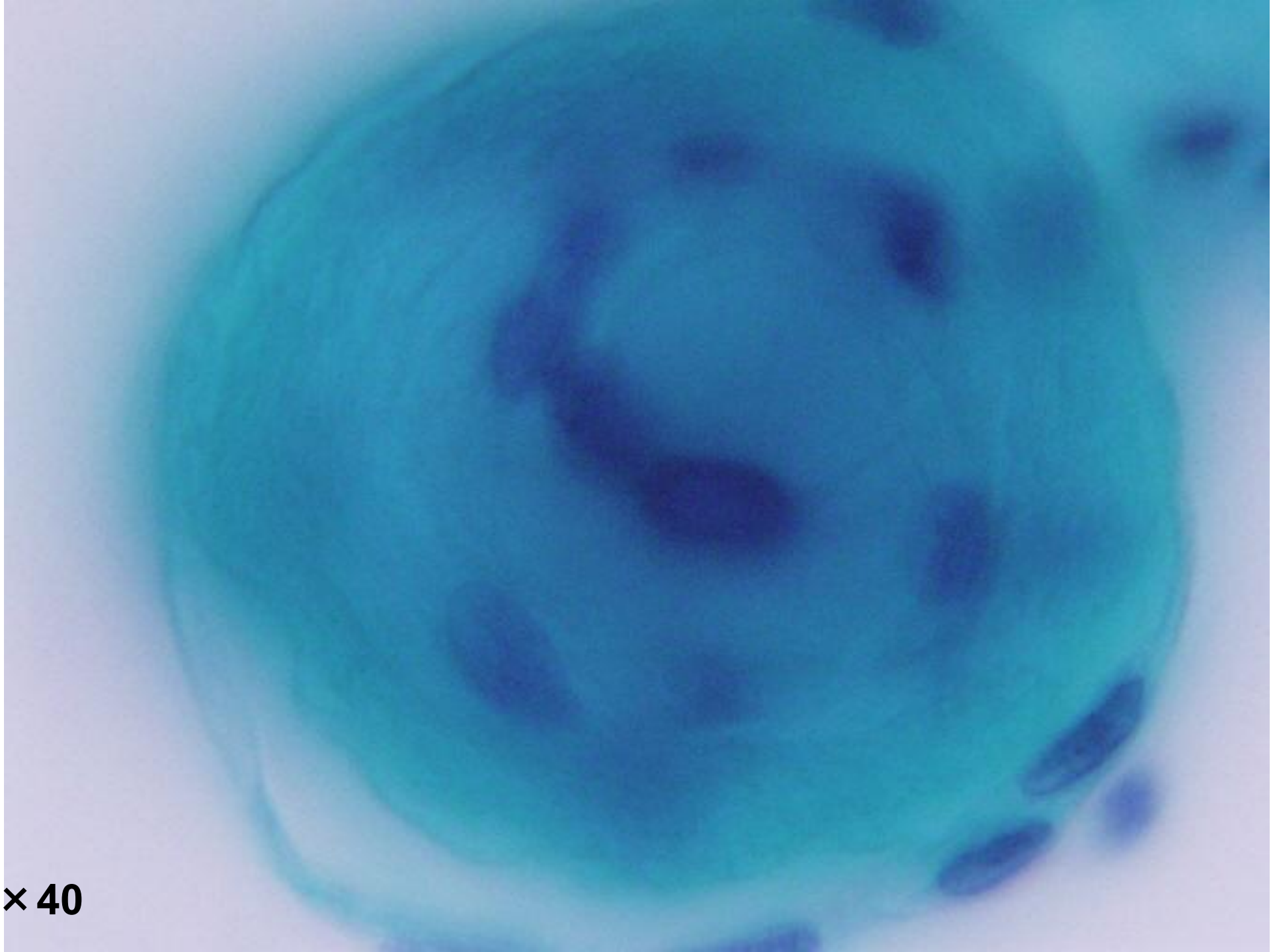
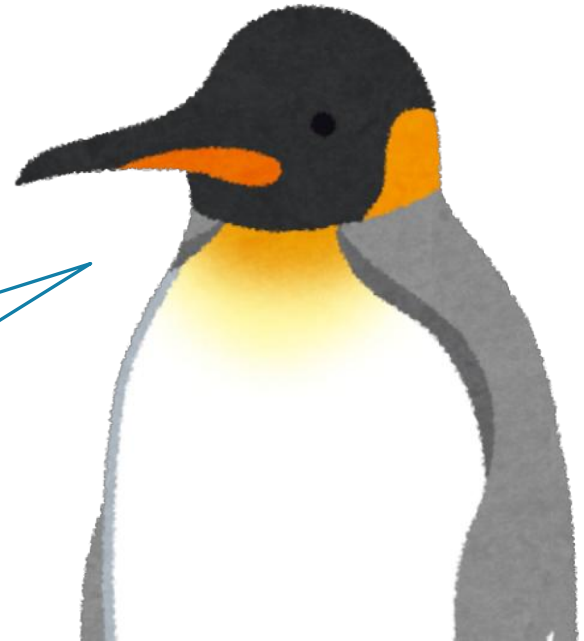


Pap染色×40

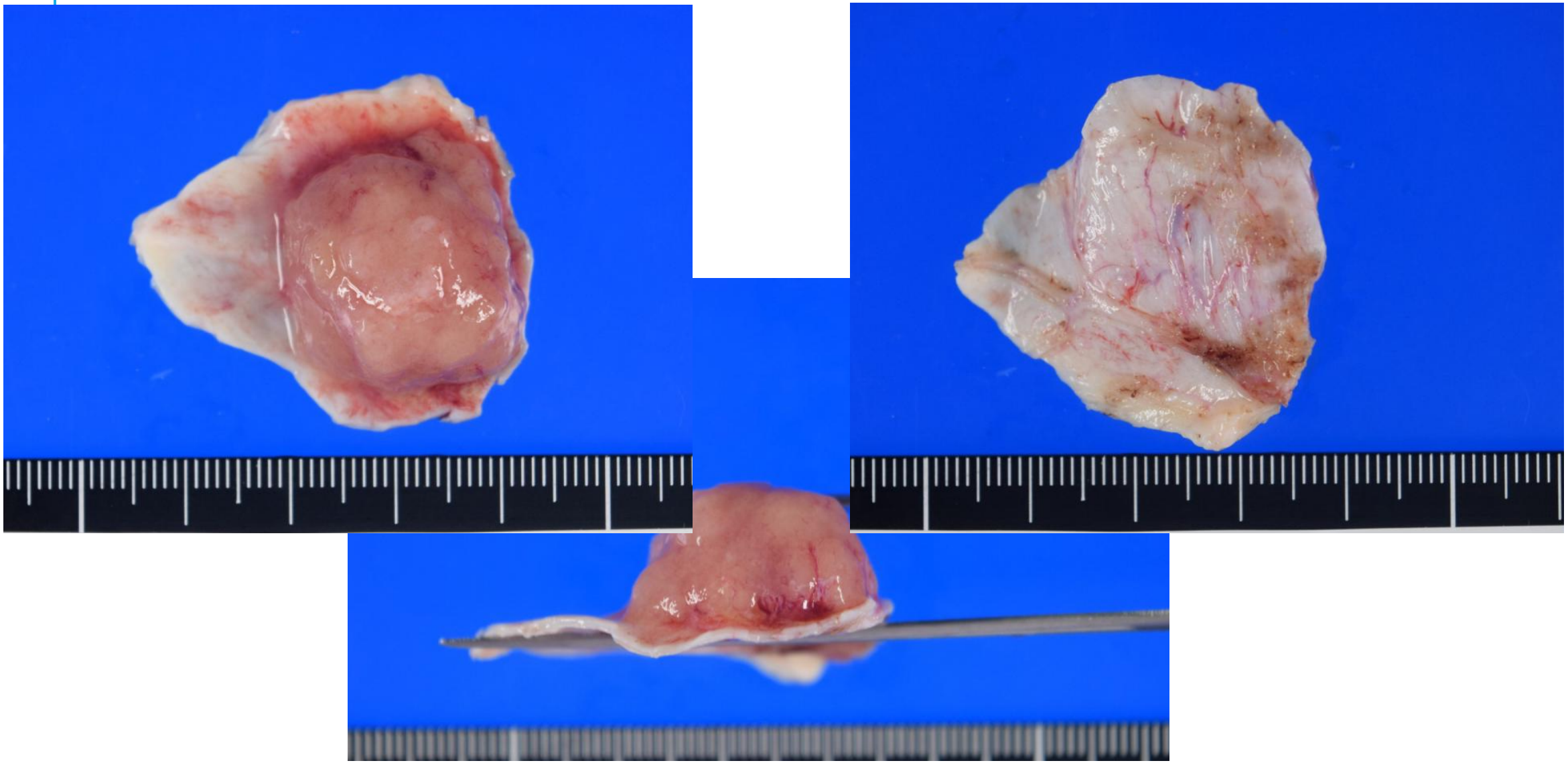
症例①

細胞診の所見から、どのような病変が推定できましたか？

次は組織所見を
みていきます

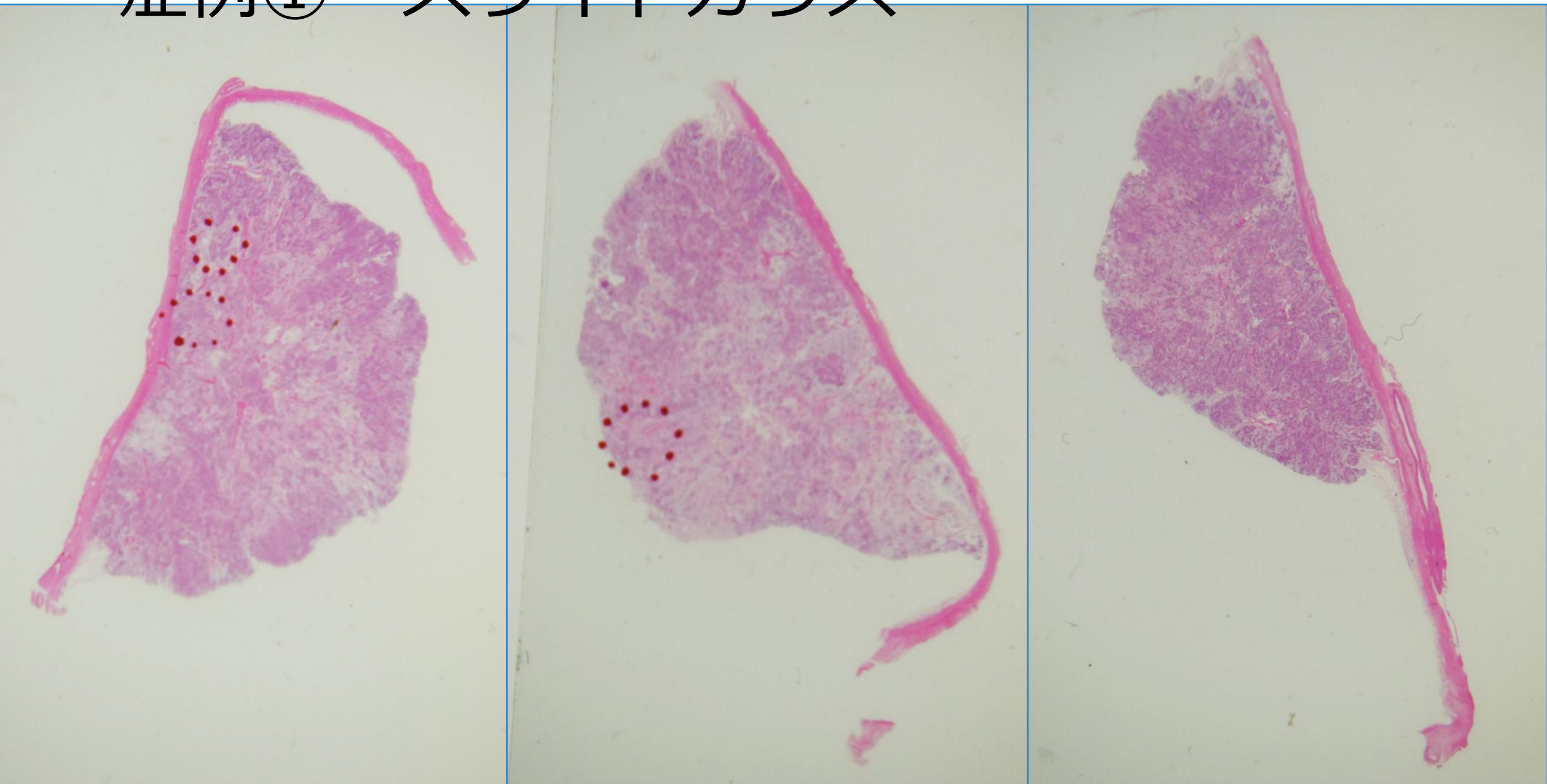


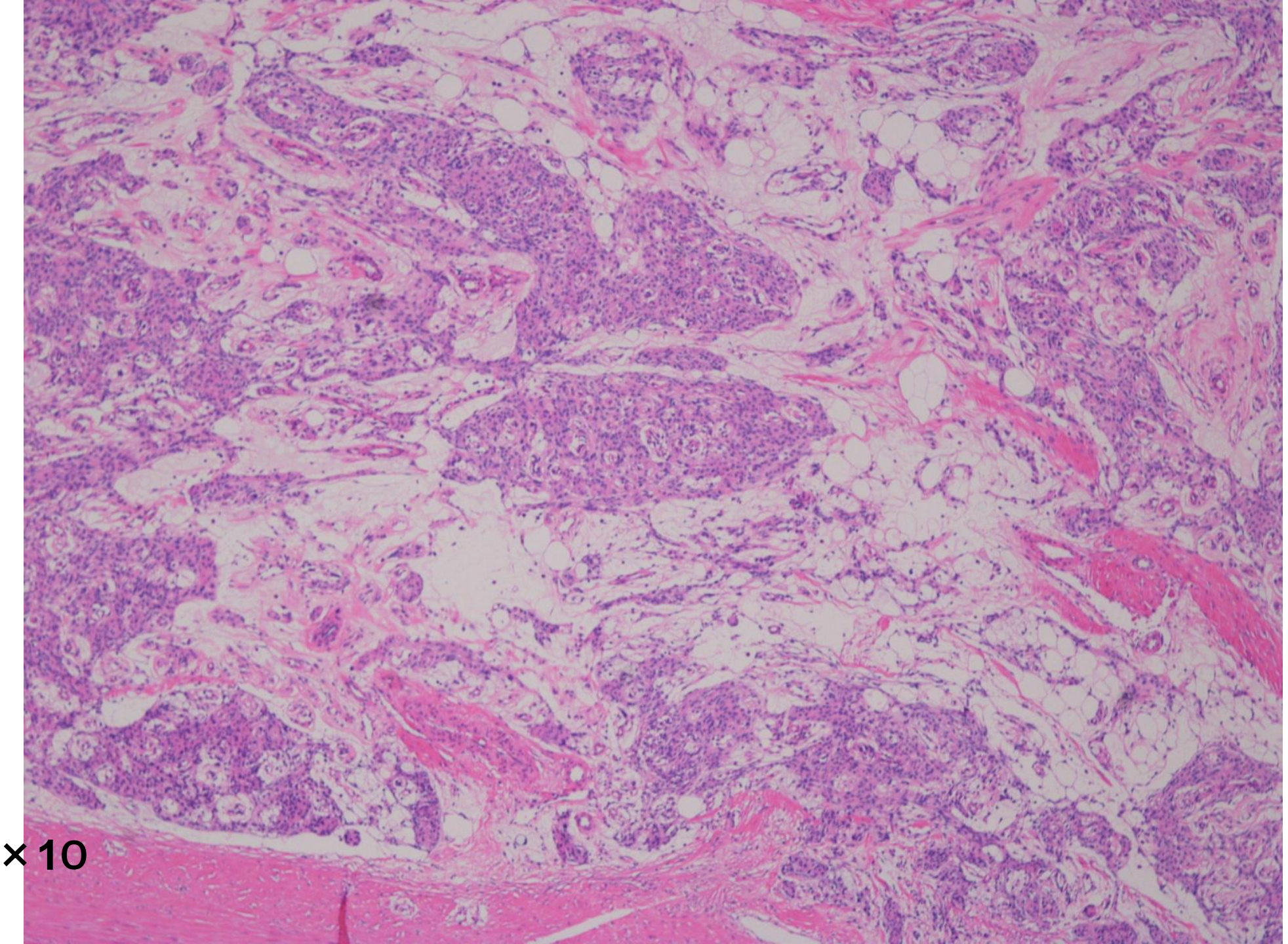
症例①　肉眼所見



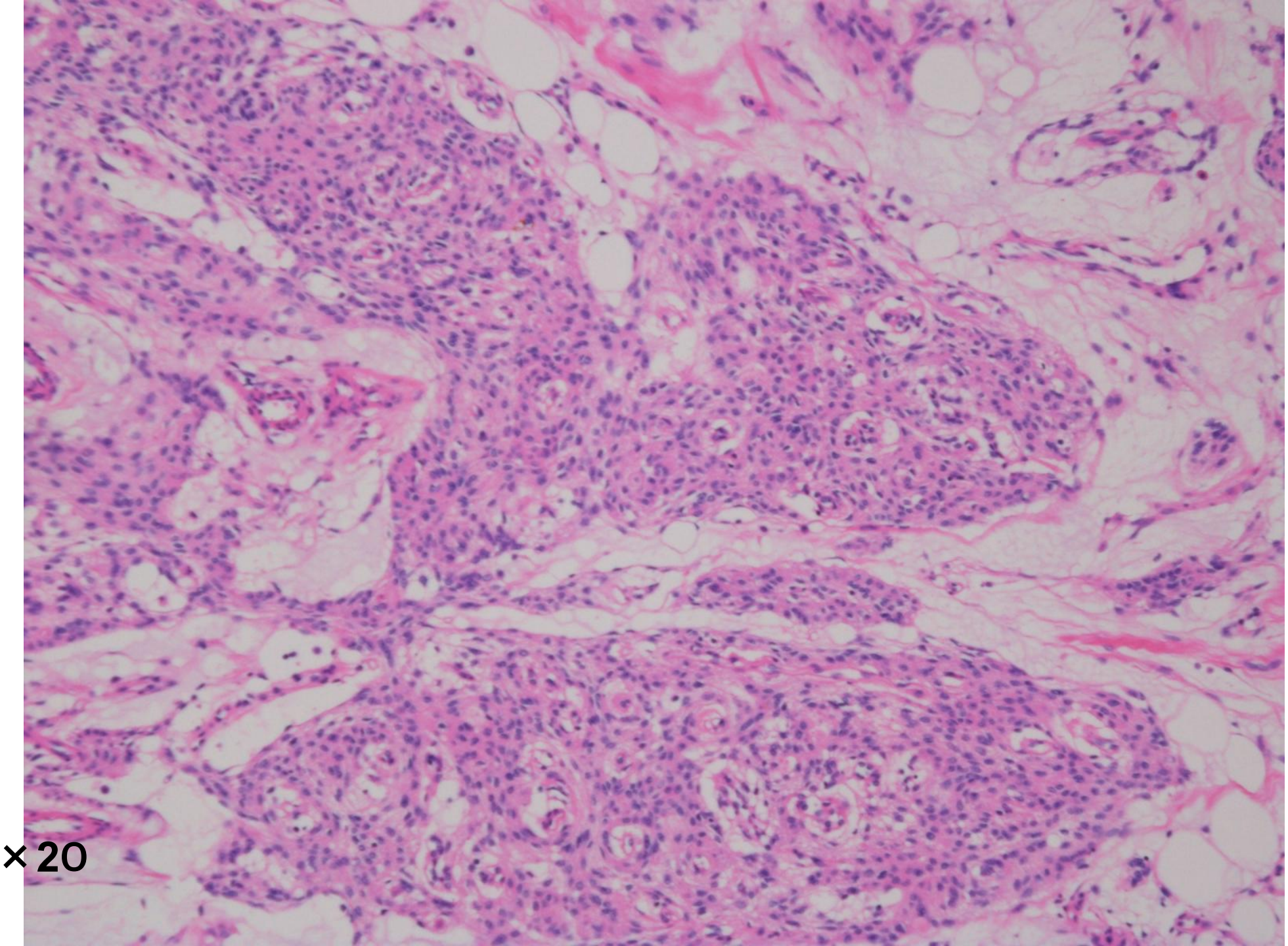
肉眼的に25×23×13mmの白色充実性腫瘍

症例①　スライドガラス

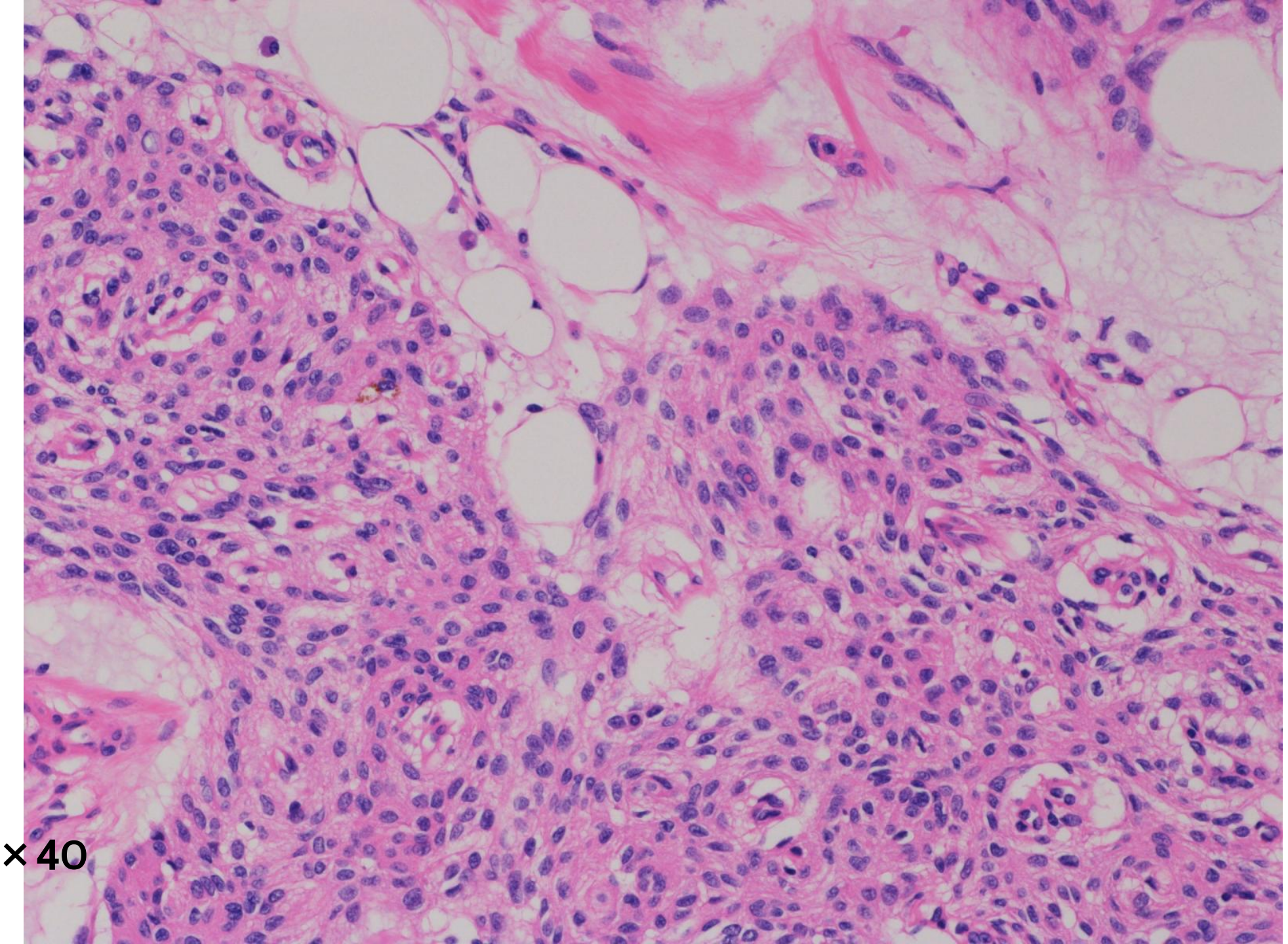




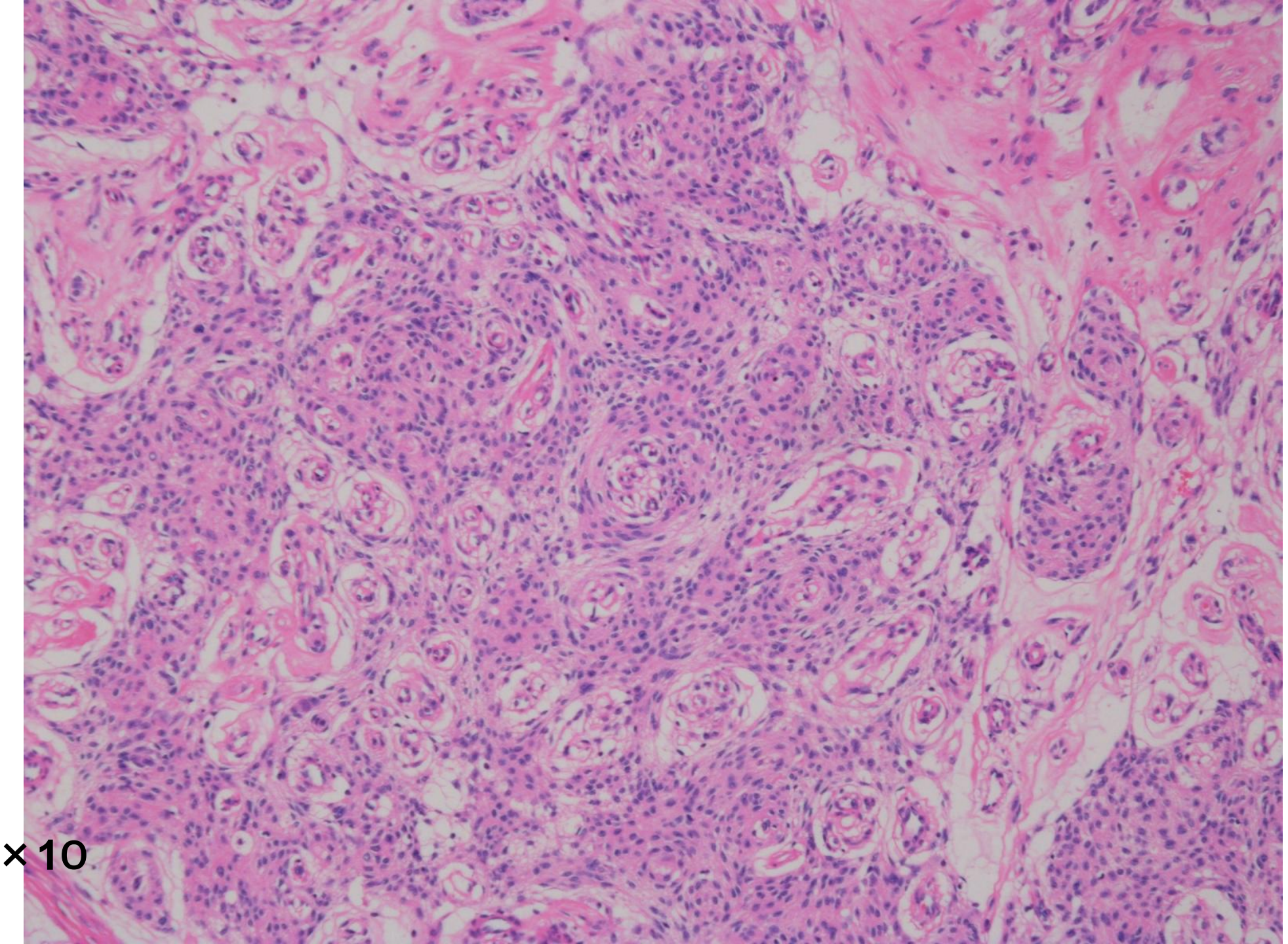
HE染色×10



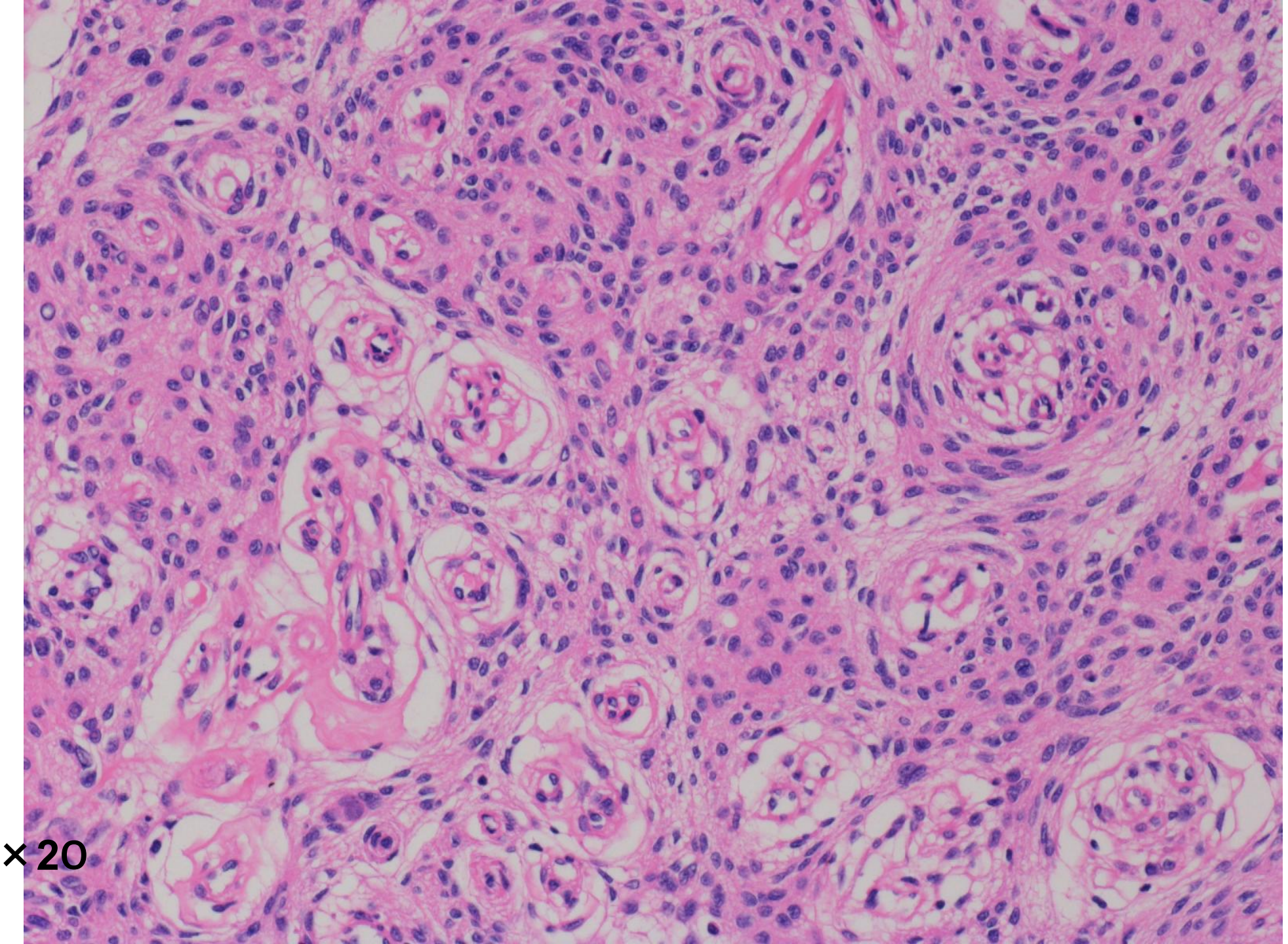
HE染色×20



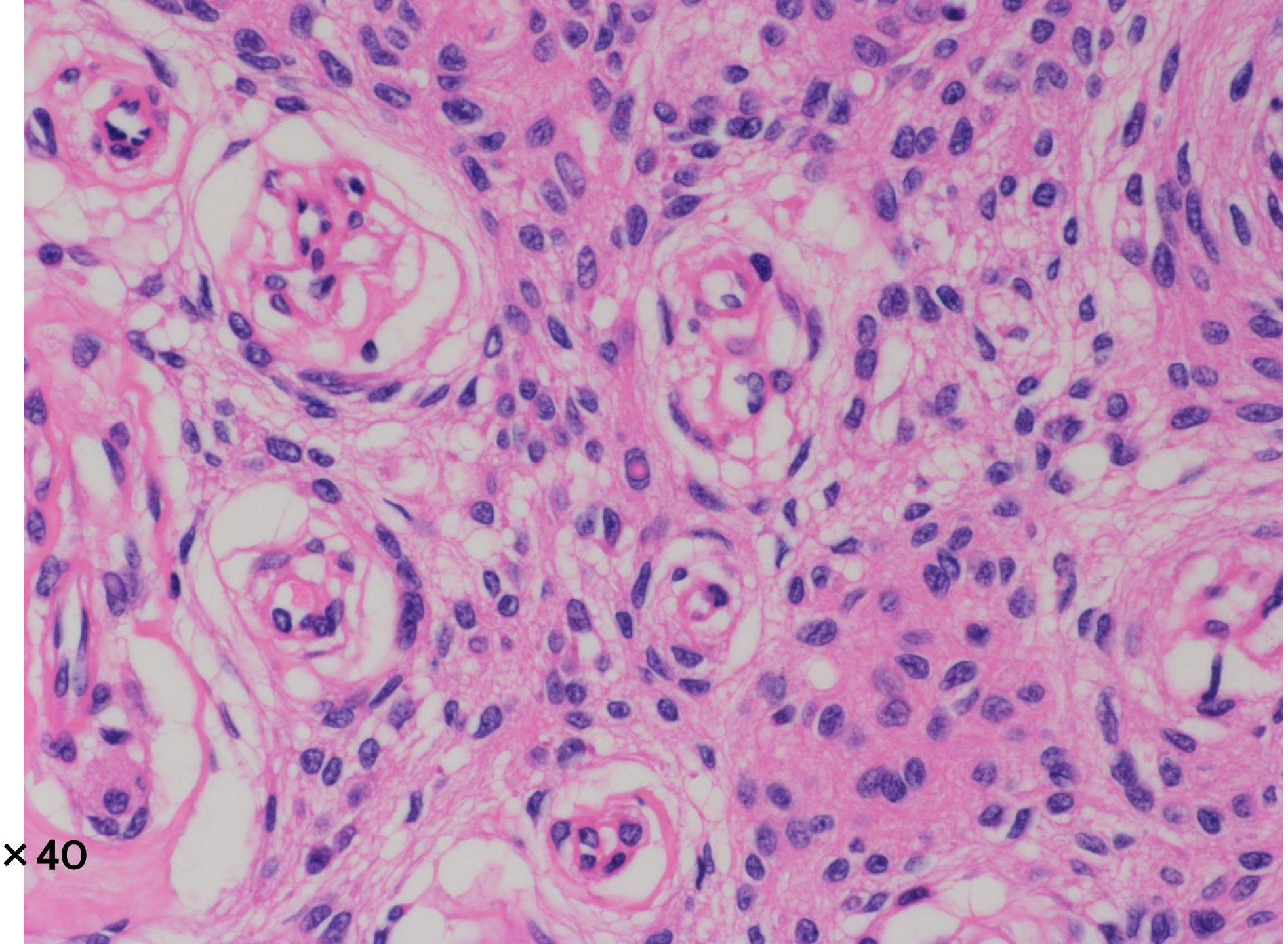
HE染色×40



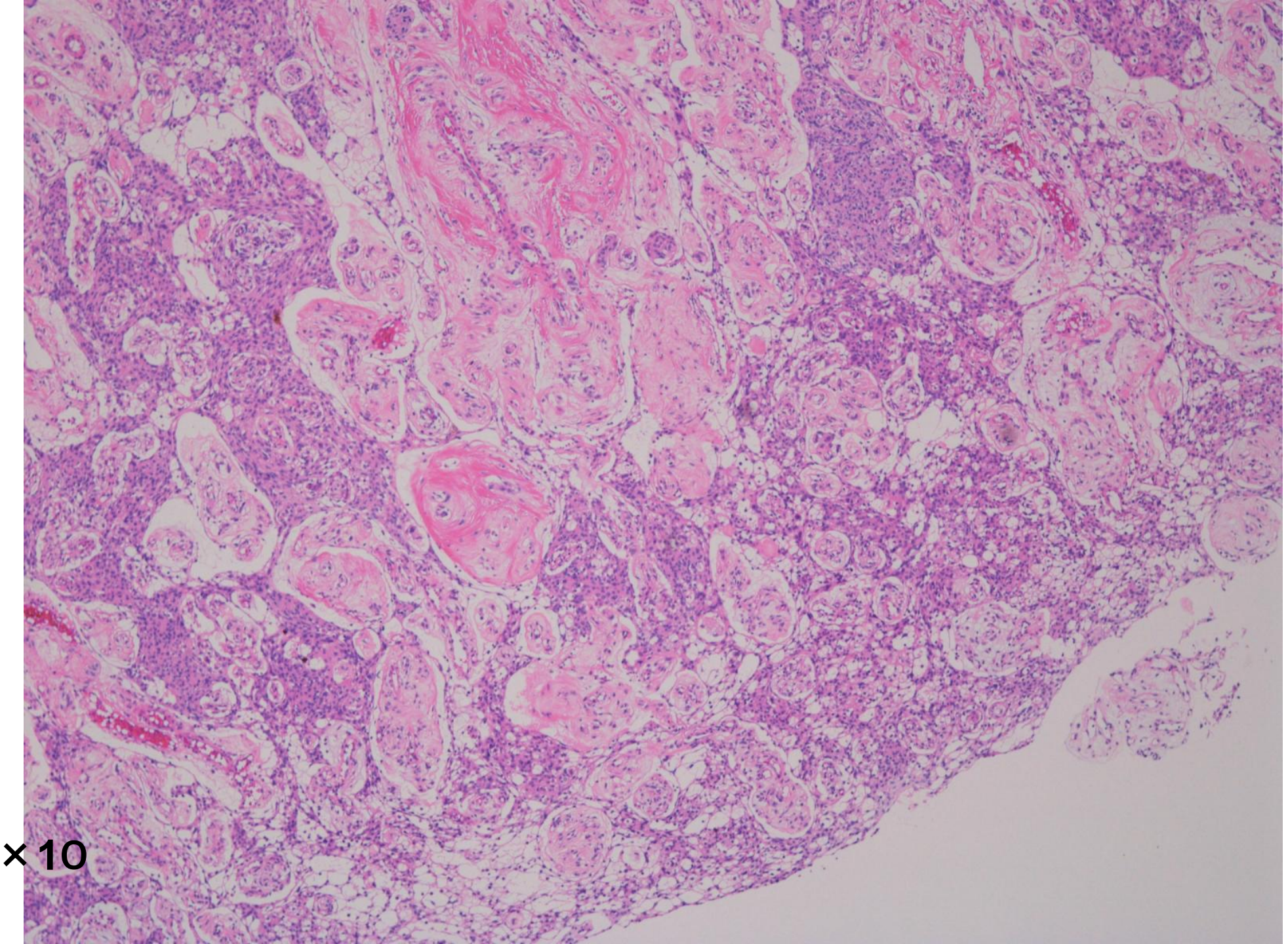
HE染色×10



HE染色 ×20



HE染色×40



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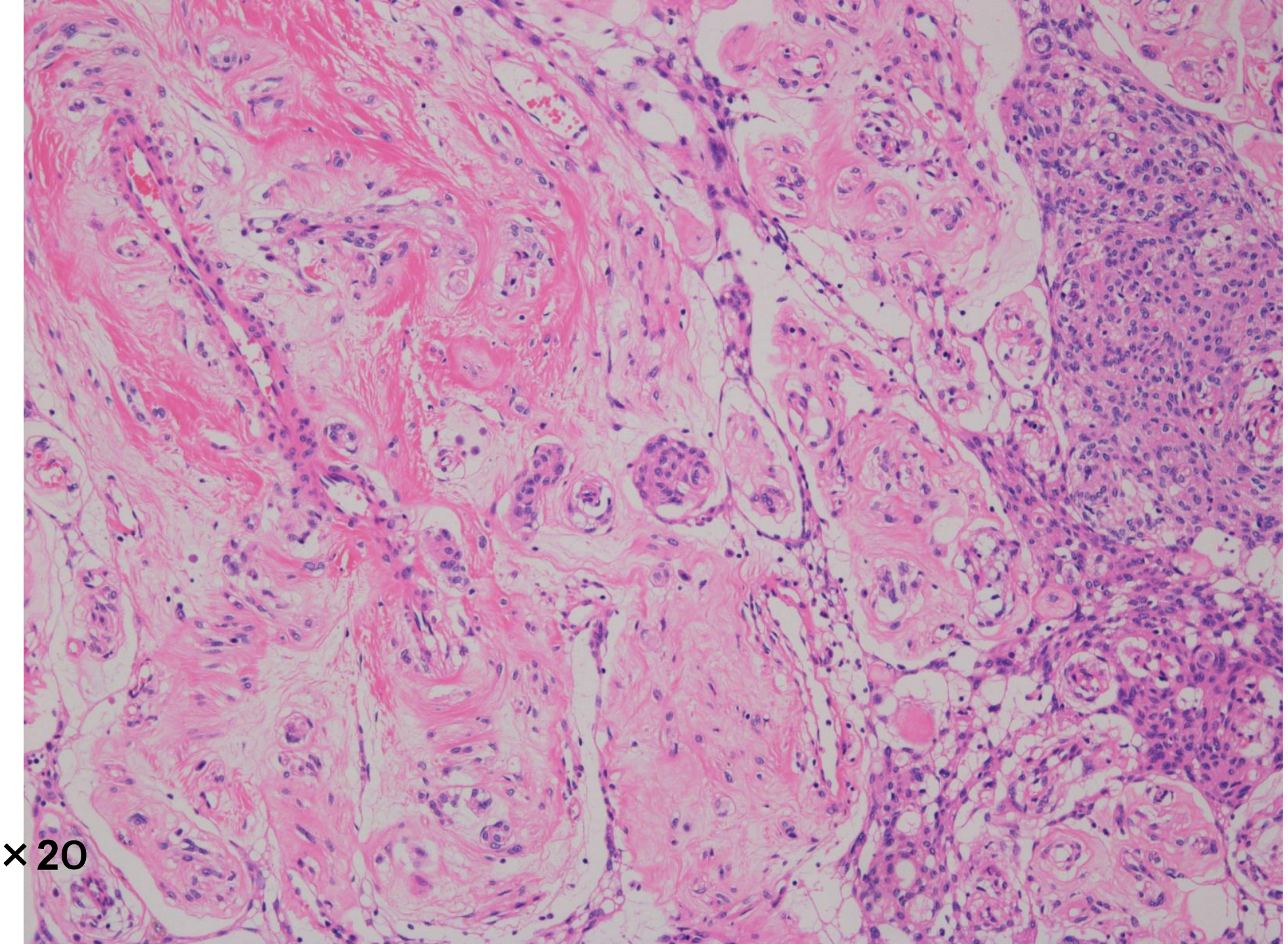

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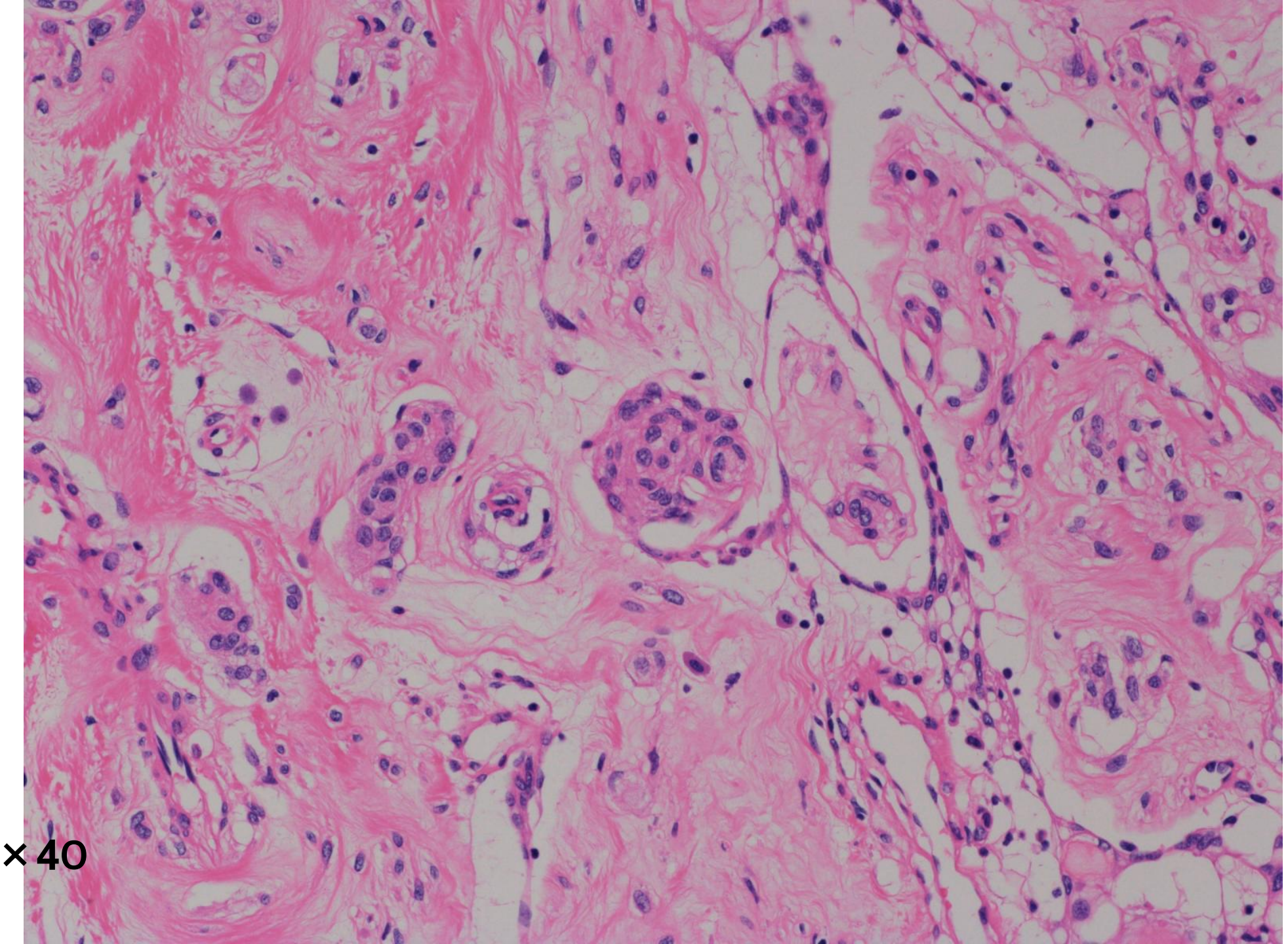
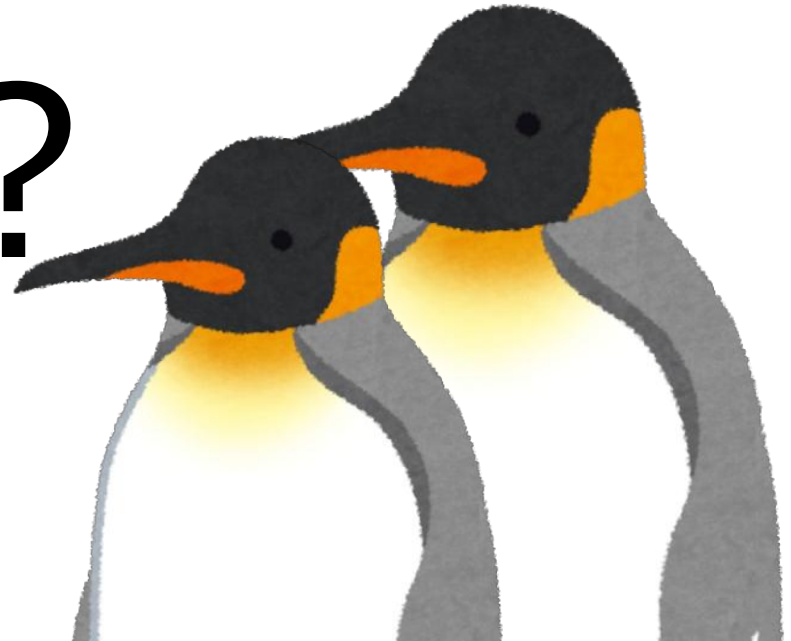


HE染色×40

症例①

HE標本の所見から、どのような病変が推定できましたか？



症例①　★病理診断結果★

症例①　★病理診断結果★

Meningothelial meningioma

髄膜腫瘍で、全体が40×３５mm。

肉眼的に25×23×13mmの白色充実性腫瘍。

組織学的に、類円形核と淡染性の胞体を有する腫瘍細胞が、渦巻き状配列を伴いながら増殖しています。

症例①　★脳腫瘍取り扱い規約中枢神経系腫瘍分類★
【引用：臨床・病理　脳腫瘍取り扱い規約　第4版】

10.髄膜腫群	
髄膜腫Meningioma	
↳　髄膜皮性髄膜腫	↳化生性髄膜腫
↳線維性髄膜腫	↳脊索腫瘍髄膜腫
↳移行性髄膜腫	↳明細胞髄膜腫
↳砂粒腫性髄膜腫	↳異型髄膜腫
↳血管腫性髄膜腫	↳乳頭状髄膜腫
↳微小嚢胞性髄膜腫	↳ラブドイド髄膜腫
↳分泌性髄膜腫	↳退形成性（悪性）髄膜腫
↳リンパ球形質細胞に富む髄膜腫	

症例①　★髄膜腫群

定義

Meningothelial cell 髄膜皮細胞

（arachnoidal cellくも膜細胞）から発生する境界明瞭な腫瘍で、硬膜の内面に固着している。

渦巻き状構造や石灰化を特徴とするが、多様な組織亜型が知られている。

組織学的悪性度は、異型性の程度と組織亜型のタイプによって、WHO grade Ⅰ、Ⅱ、Ⅲの3段階に分類されている。GradeⅡ、Ⅲの髄膜腫では再発率が高く、予後不良なことが多い。

症例①　★髄膜腫群

- **・特徴**

- 髄膜腫は、中高年齢者に発生する事が多く、特に女性での発生率が男性に比べて約2倍高い。稀に小児に発生することもある。
- 　髄膜腫の多くは硬膜内で髄外性に発育し、円蓋部、傍矢状部、嗅球部、蝶形骨縁、トルコ鞍周辺に位置していることが多い。弾性硬で境界明瞭な腫瘤を形成し、硬膜内側に強固に付着している。稀に頭蓋骨や皮膚に浸潤することがある。また、頭蓋底に発生する髄膜腫では、扁平で板状の腫瘤を形成することがある（en plaque meningioma）。

症例①　★髄膜腫群

- **特徴**

神経線維腫症2型患者では、髄膜腫が多発性に発生することがある。散発性に発生する髄膜腫の約60%にNF2遺伝子の欠失または変異（あるいは両方）を認める。NF2遺伝子異常は円蓋部発生の線維性髄膜腫、以降性髄膜腫に多く、異型髄膜腫や退形成性髄膜腫ではより頻度が高い。頭蓋底に発生するGrade Ⅰの髄膜腫ではTRAF7、AKT1、KLF4、SMO、POLR2Aに異変を認める。異型髄膜腫や退形成性髄膜腫ではTERTのプロモーターの変異を認める。

症例①　★髄膜腫群

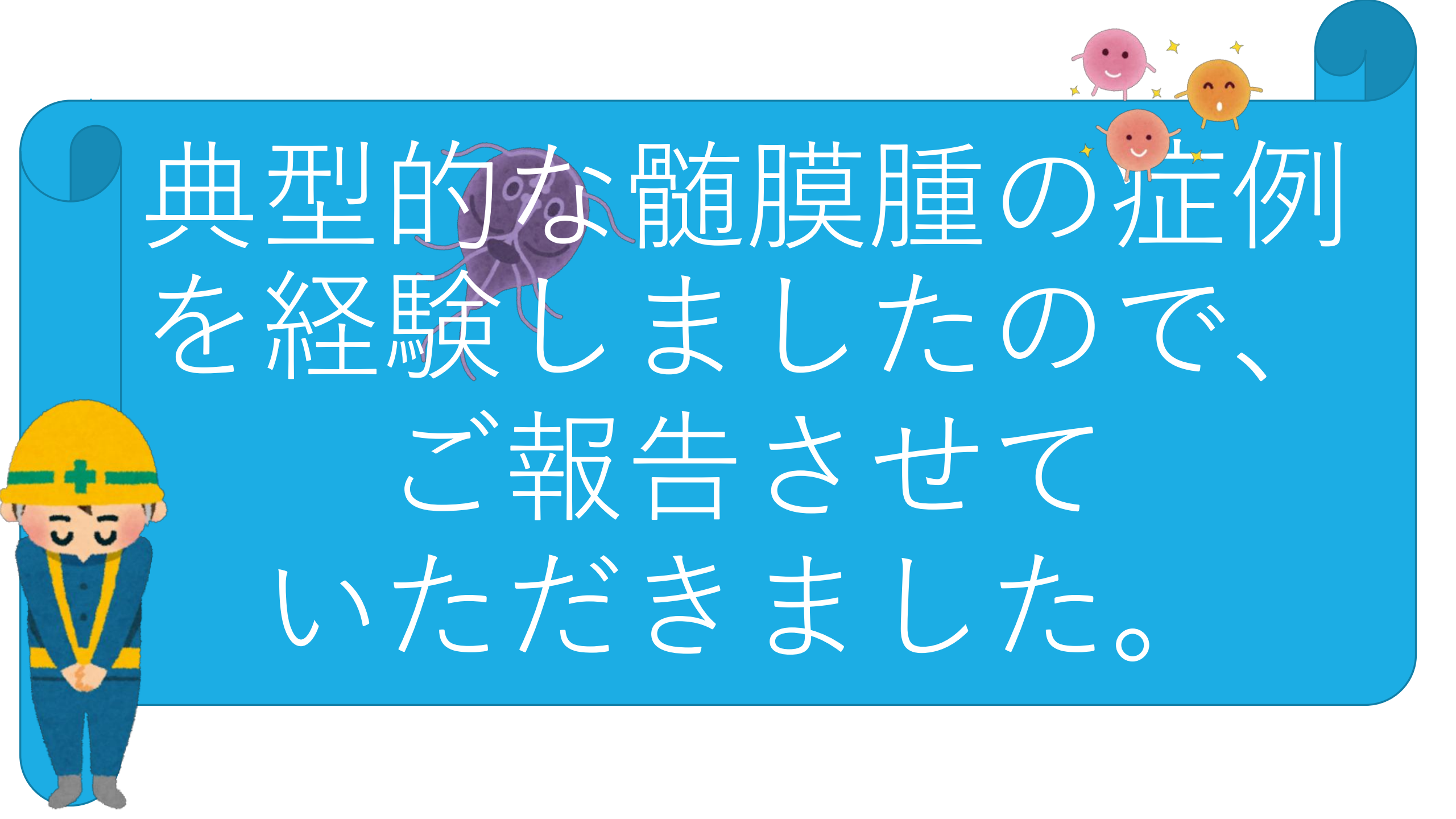
・特徴

髄膜腫は多様な組織所見を示す腫瘍である。後述の髄膜皮性、線維性、移行性のいずれかの組織像を呈することが多いが、これら以外にも多様の組織亜型が知られている。組織所見の基本となるのは、特徴的な渦巻き状構造、砂粒体の形成、核内偽封入体の存在などである。免疫染色では、EMAが細胞膜に陽性になる。

症例①
Meningothelial meningioma

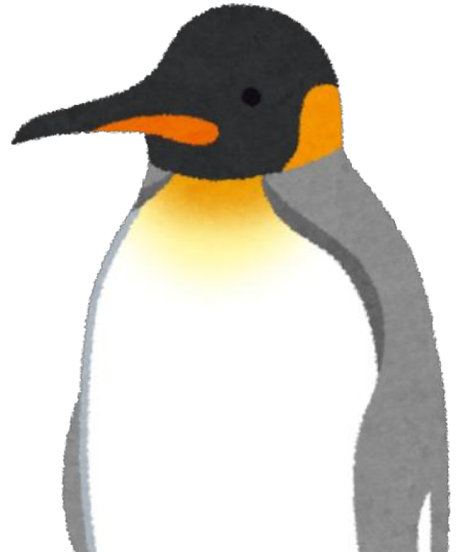
髄膜皮性髄膜腫

代表的な髄膜腫の亜型で、上皮様に腫大したくも膜細胞様の腫瘍細胞が充実性に増殖し、分葉状構造を呈している。好酸性を示す細胞質の境界は不明瞭で、合胞体細胞様にみえることがある。核は卵円形で、細胞質の弯入や空胞状の核内偽封入体がしばしば認められる。渦巻き状構造や砂粒体の形成は比較的少ない。前頭蓋底に多く発生し、NF2遺伝子異常は少ない。WHO grade Ⅰ

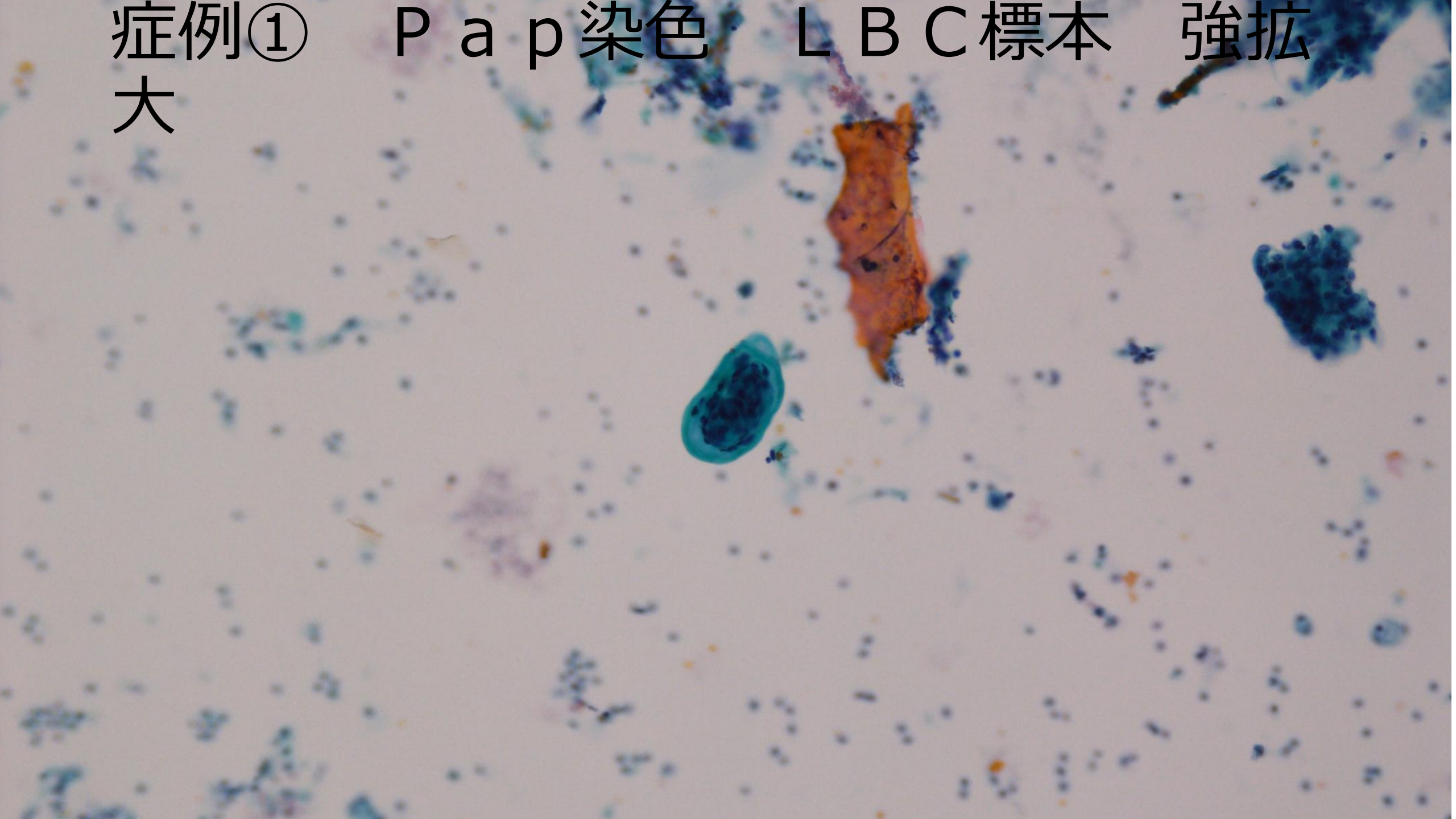

典型的な髄膜腫の症例
を経験しましたので、
ご報告させて
いただきました。

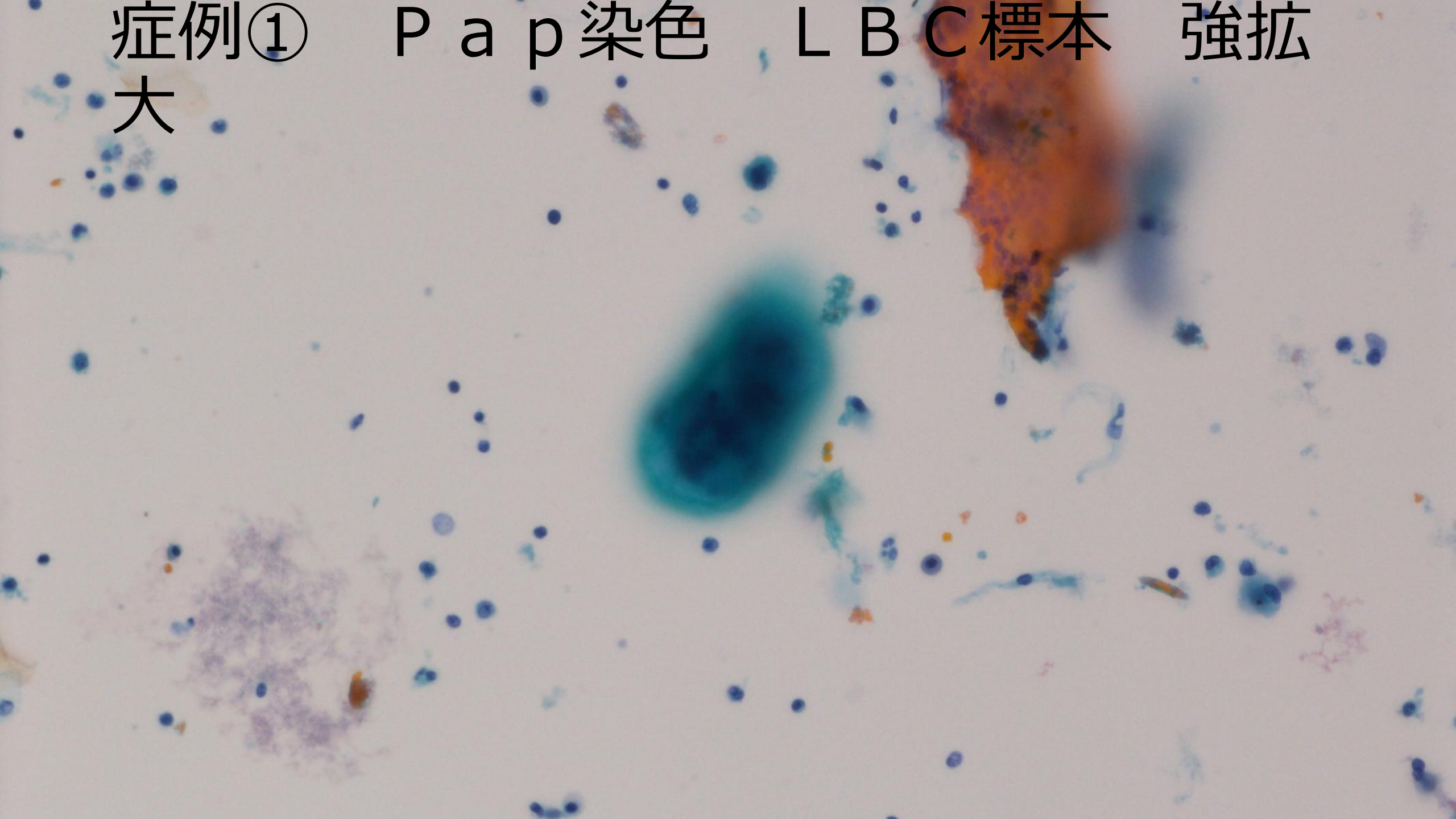
～おまけ～

LBC標本において、
渦巻き状配列がきれいに観察できます。
おすすめです。

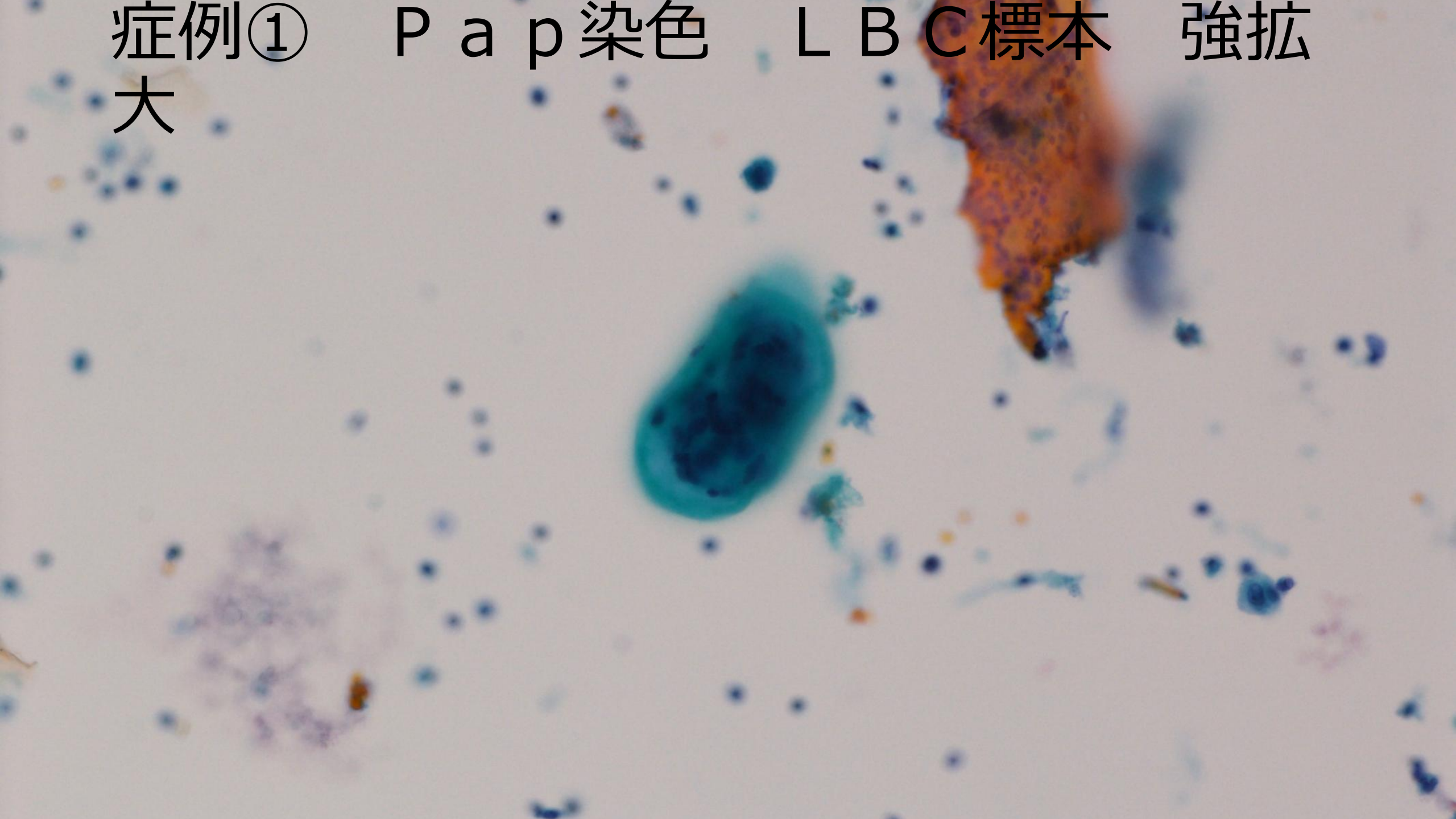


症例①　Ｐａｐ染色　ＬＢＣ標本　強拡大

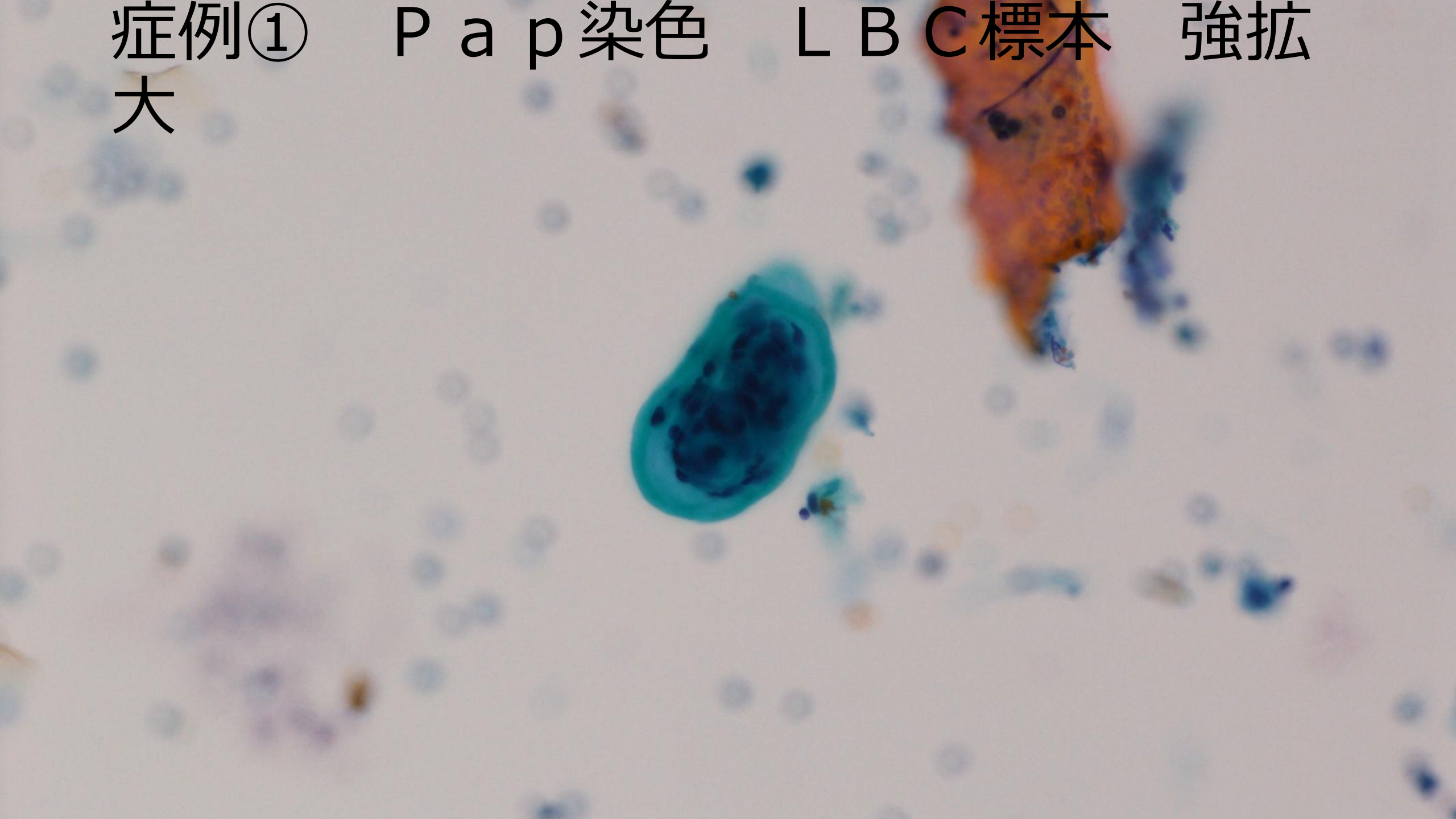



症例①　Ｐａｐ染色　ＬＢＣ標本　強拡大

症例①　Ｐａｐ染色　ＬＢＣ標本　強拡大

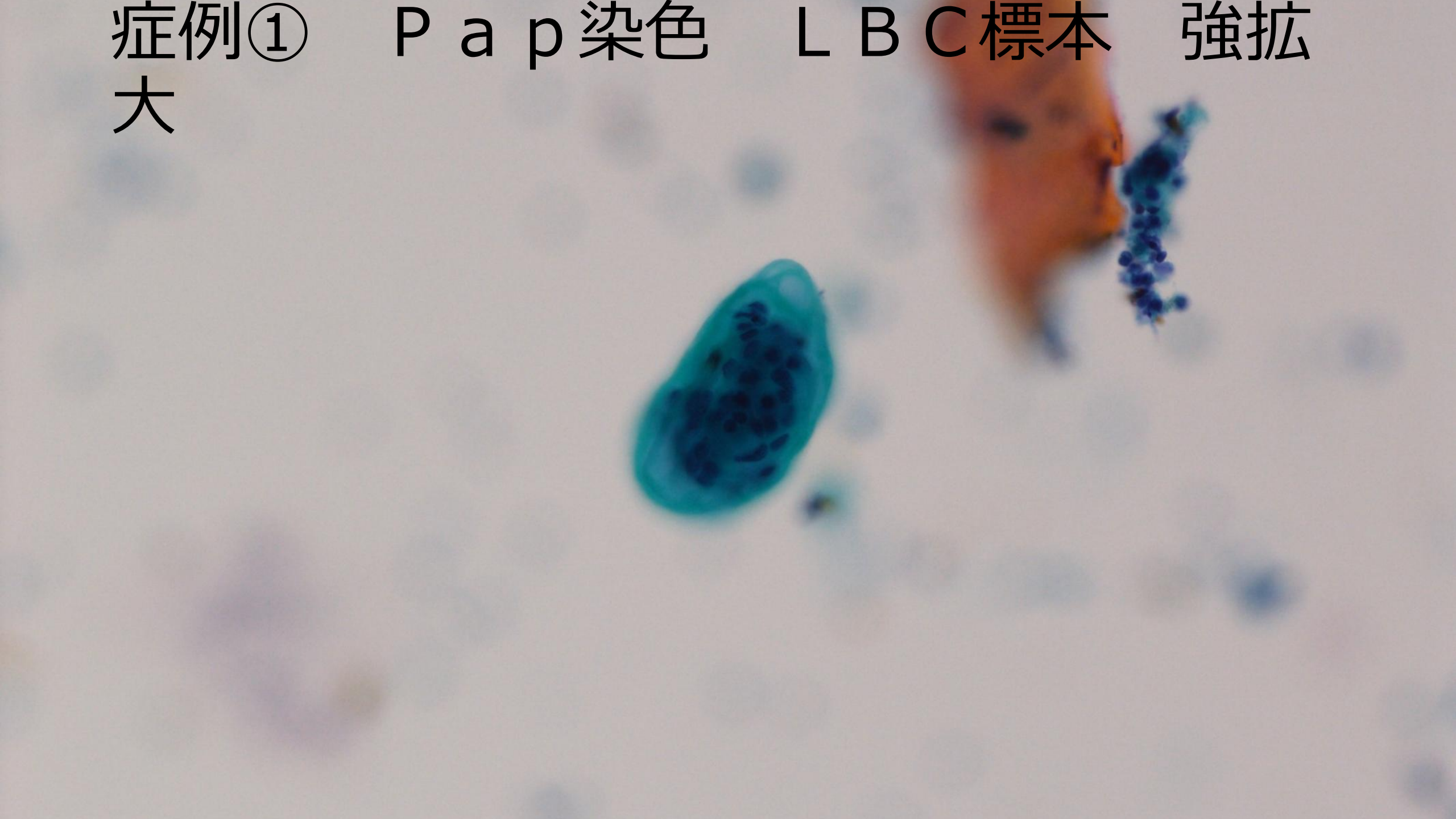


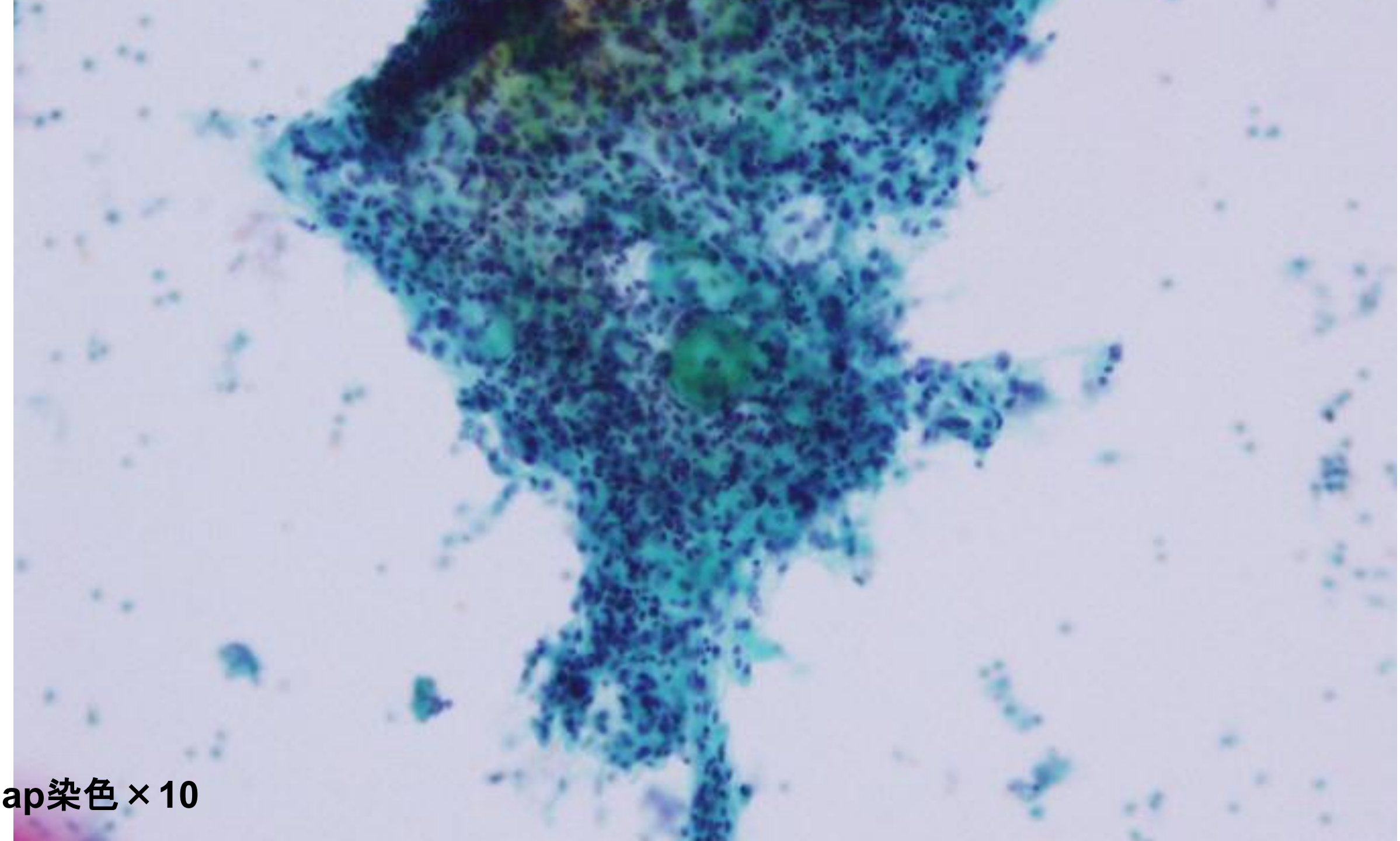
症例①　Ｐａｐ染色　ＬＢＣ標本　強拡大



症例①　Ｐａｐ染色　ＬＢＣ標本　強拡大

症例①　Ｐａｐ染色　ＬＢＣ標本　強拡大





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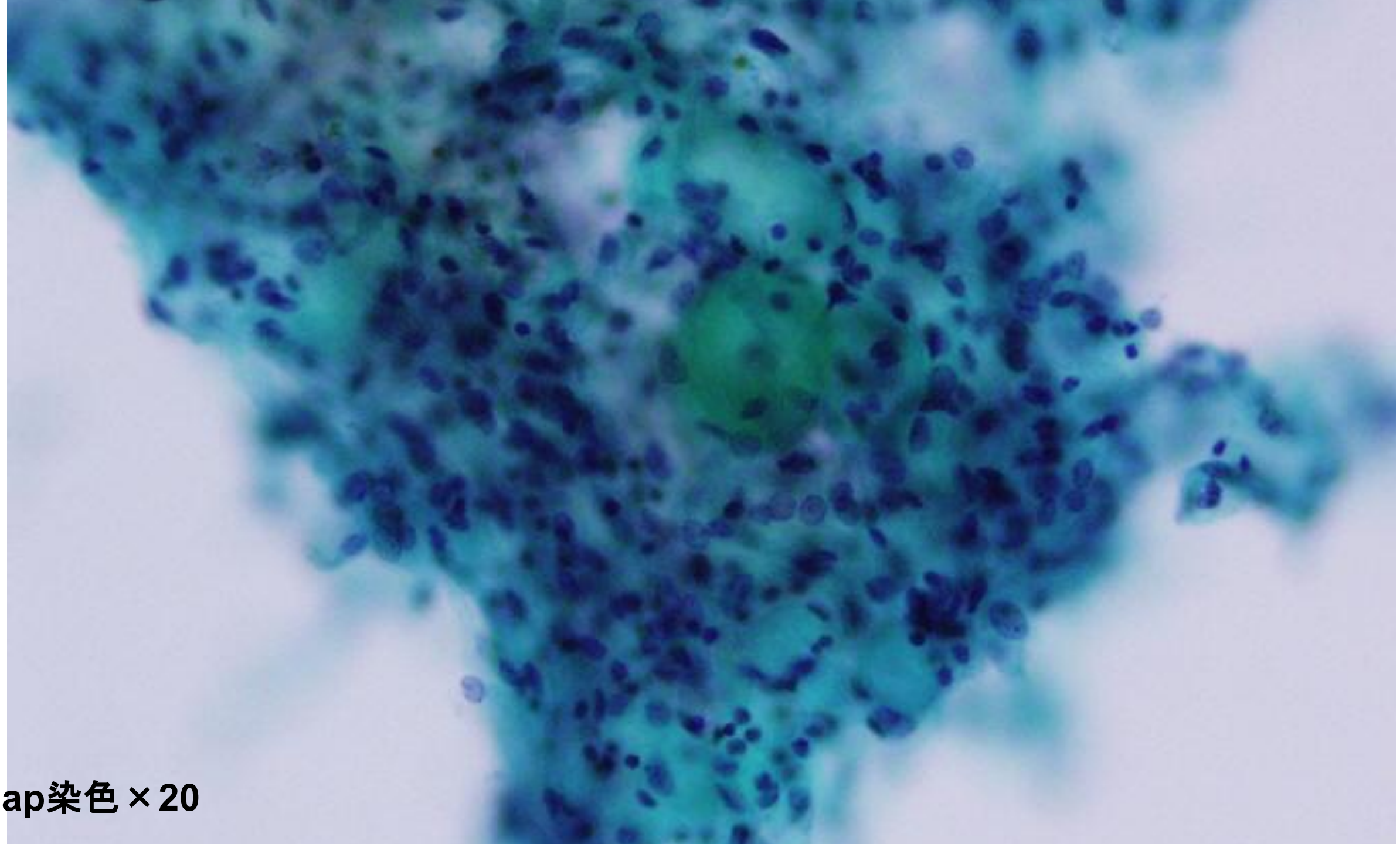

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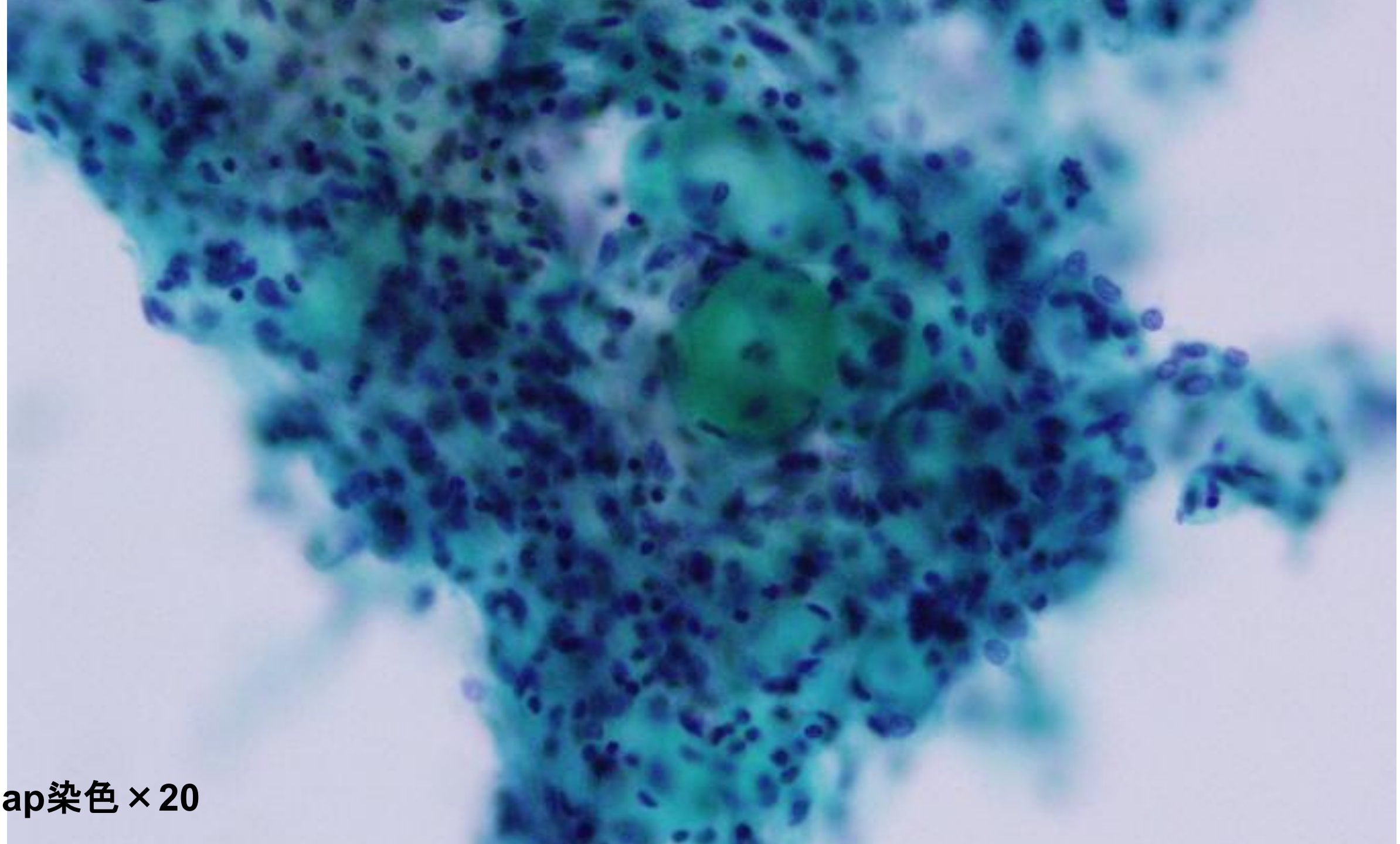

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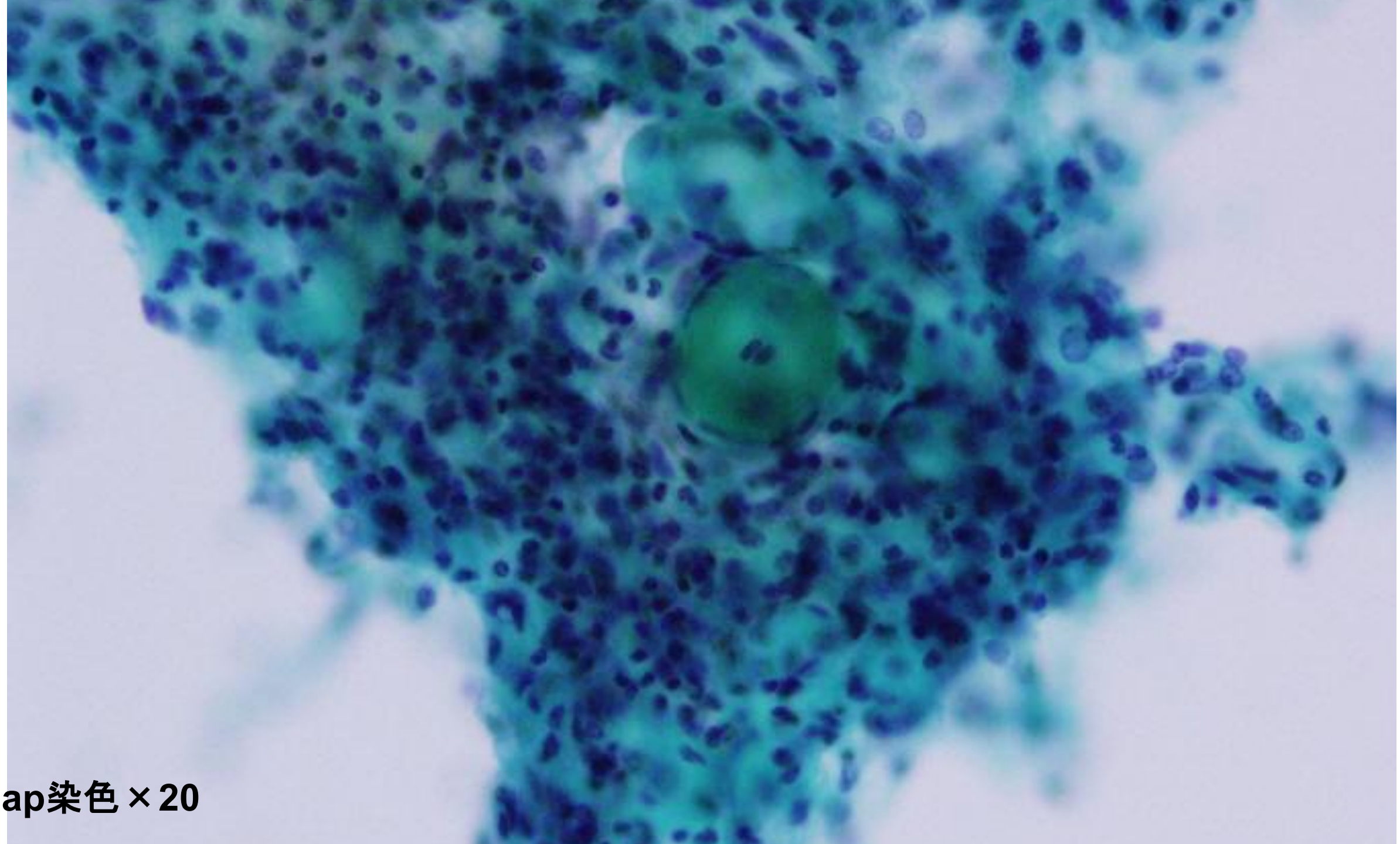

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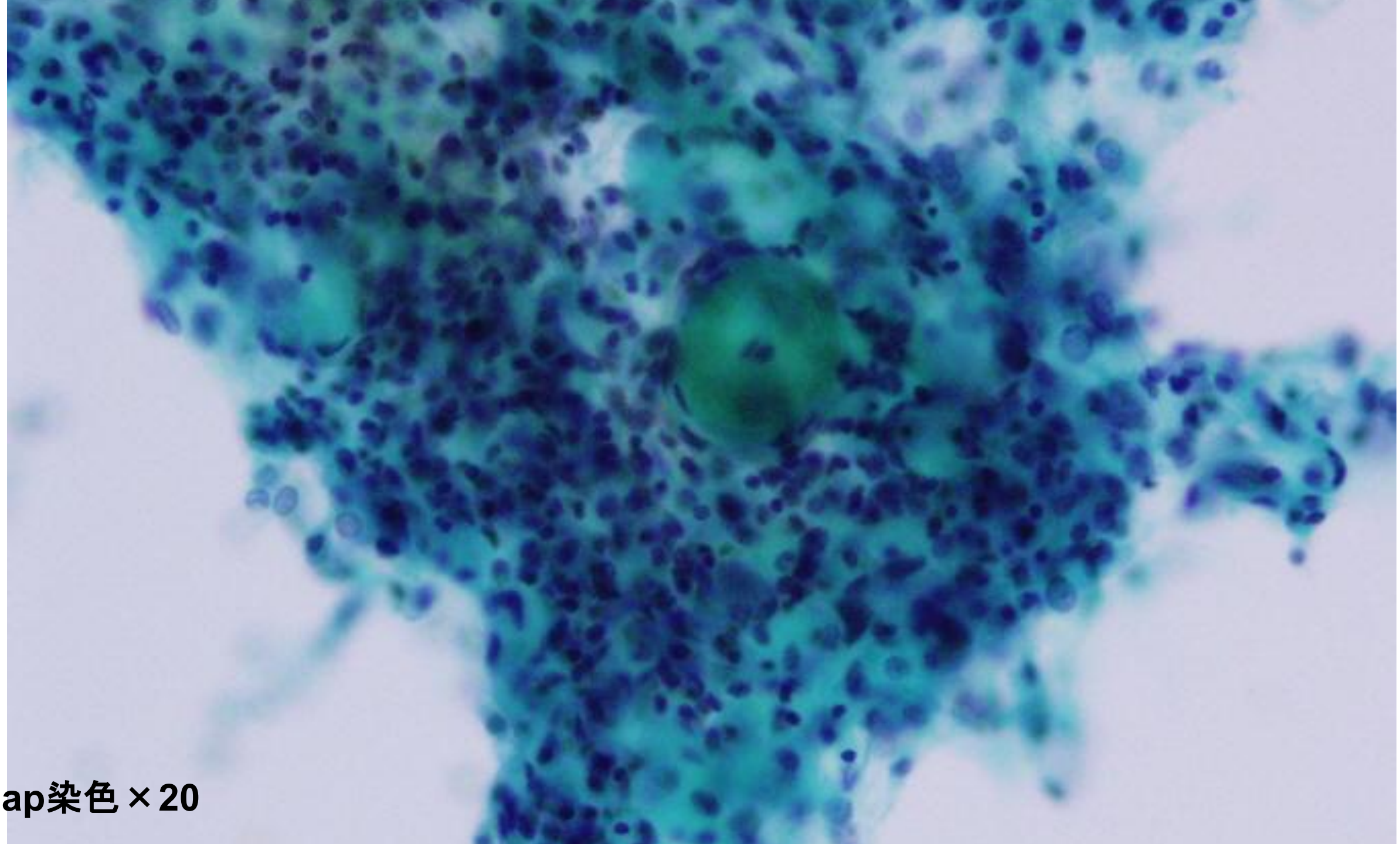

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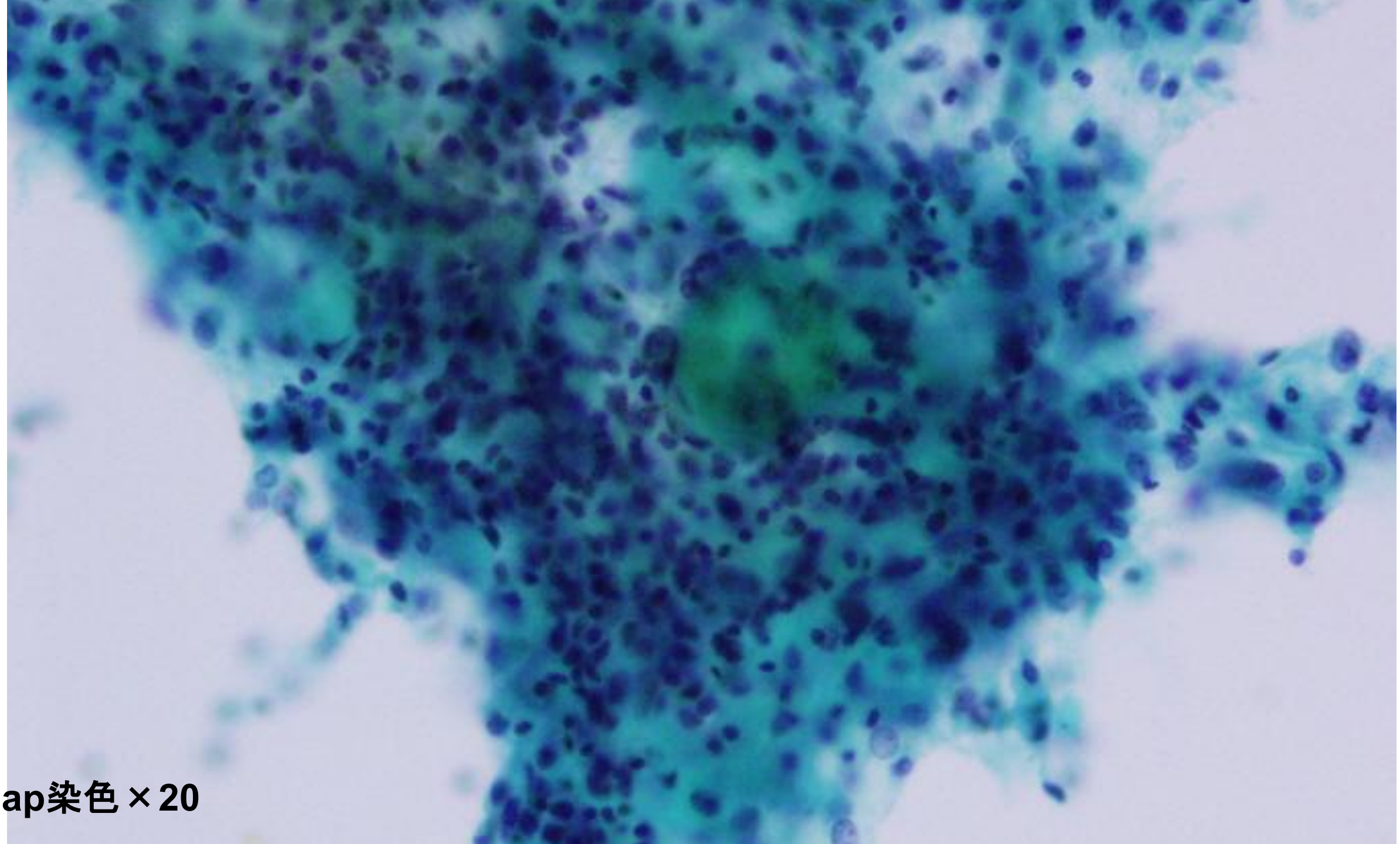

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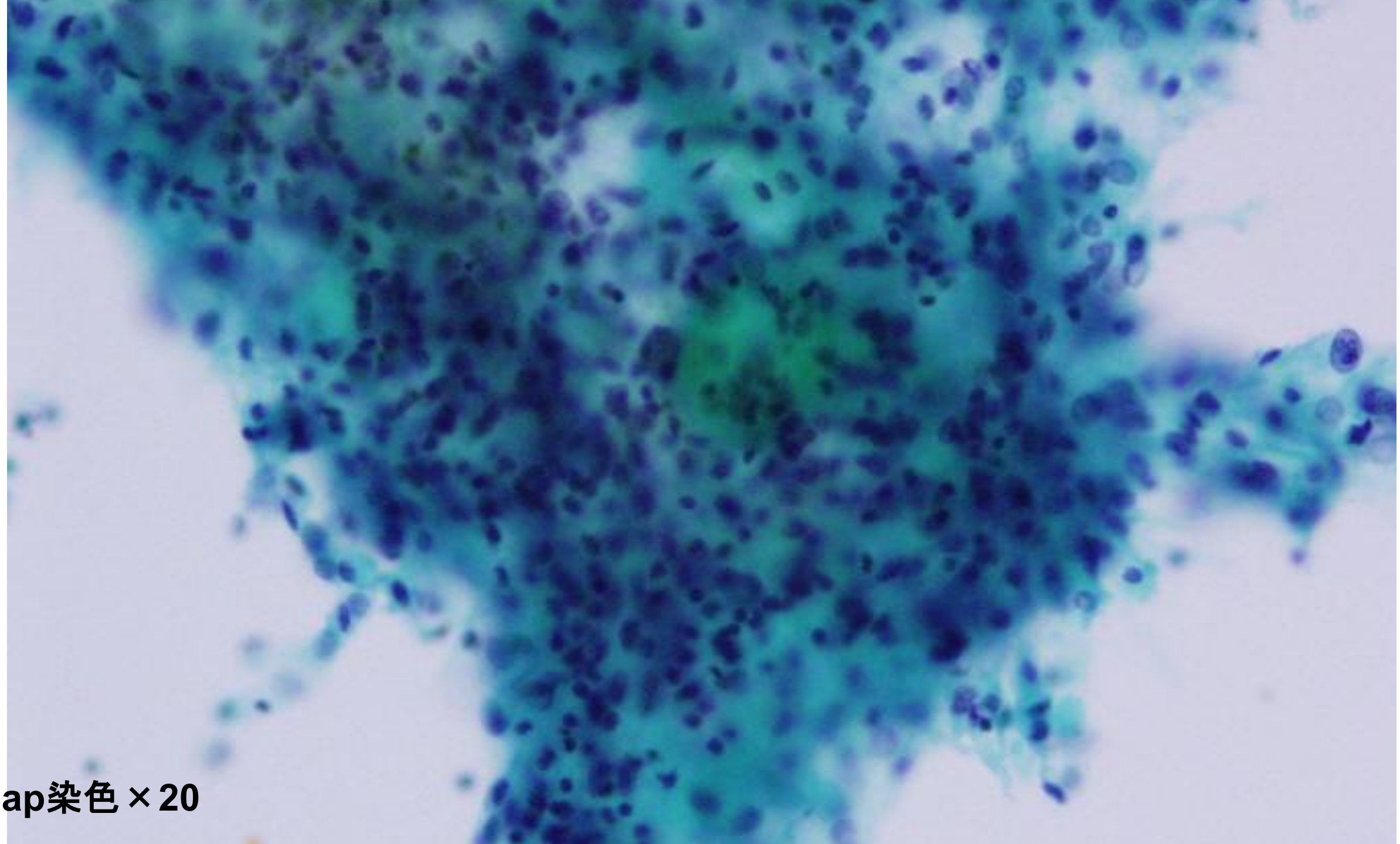

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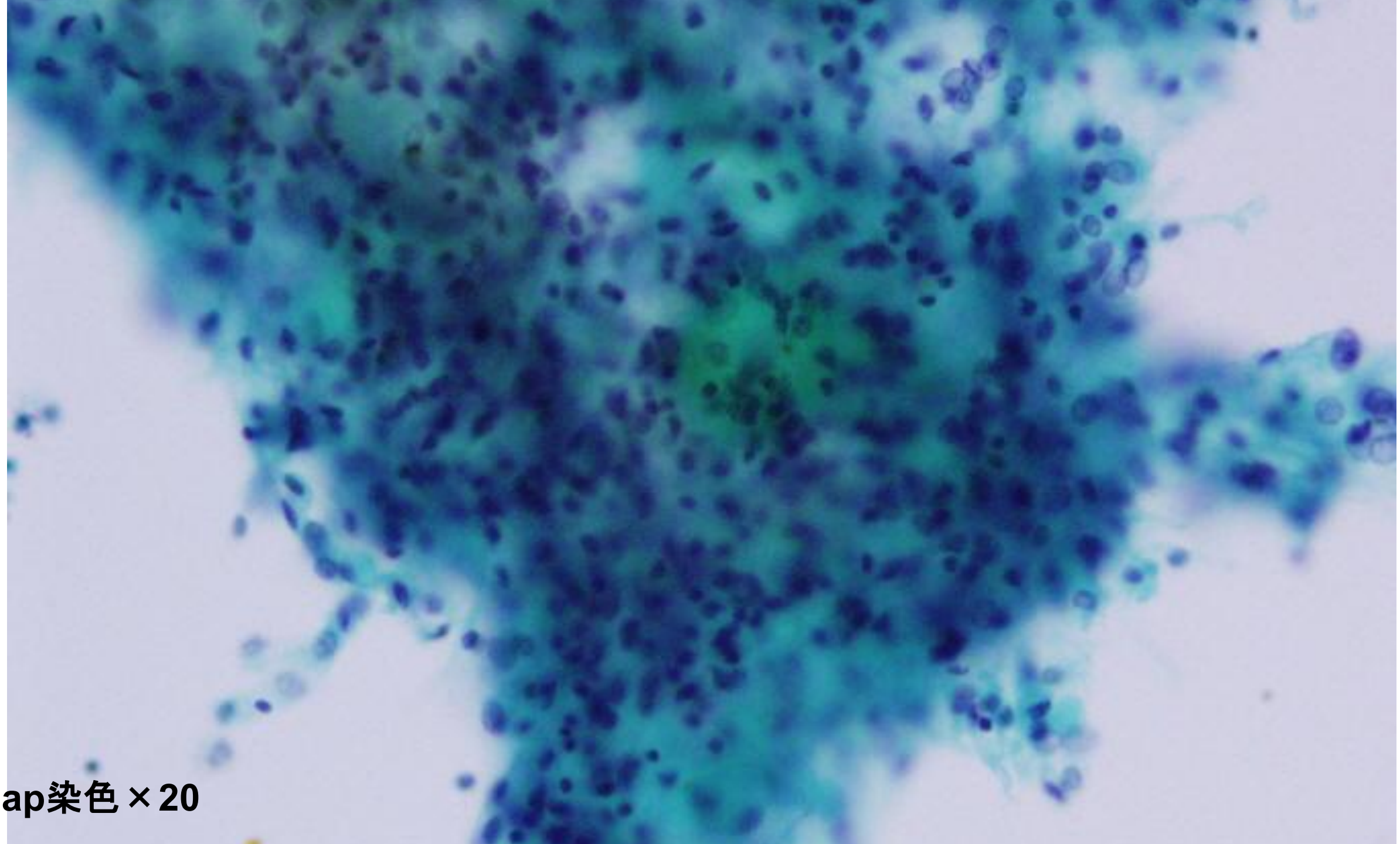

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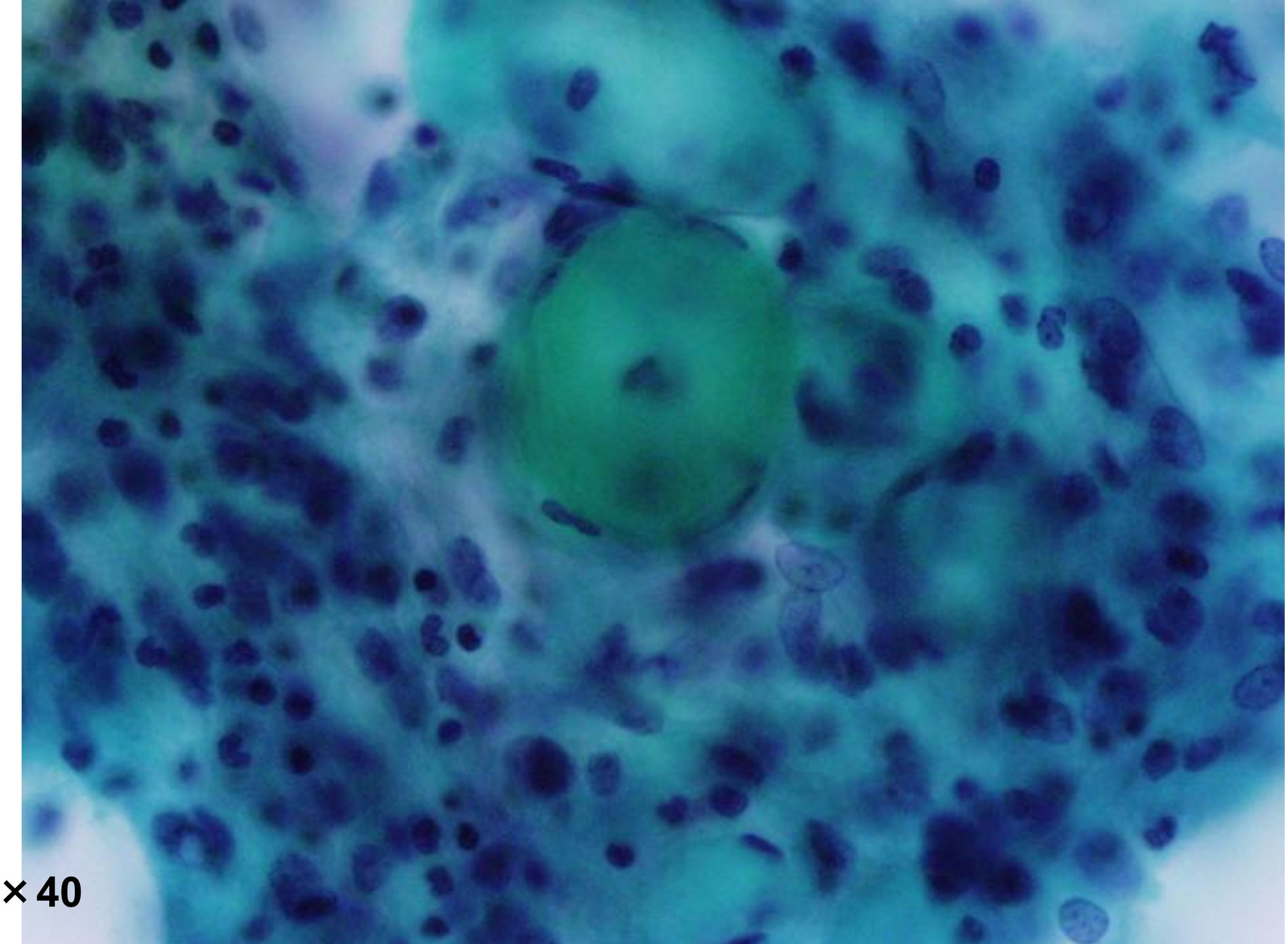

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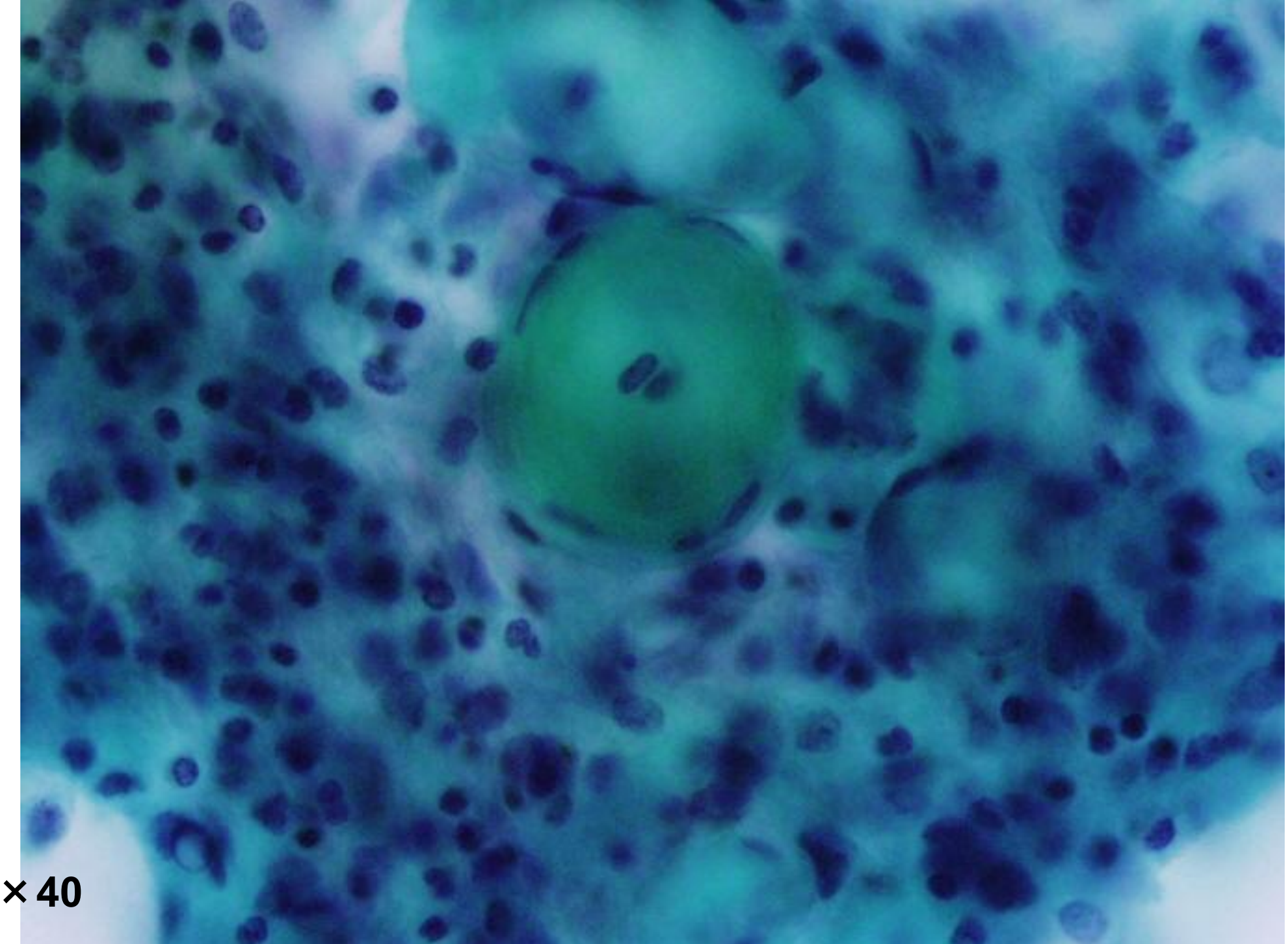

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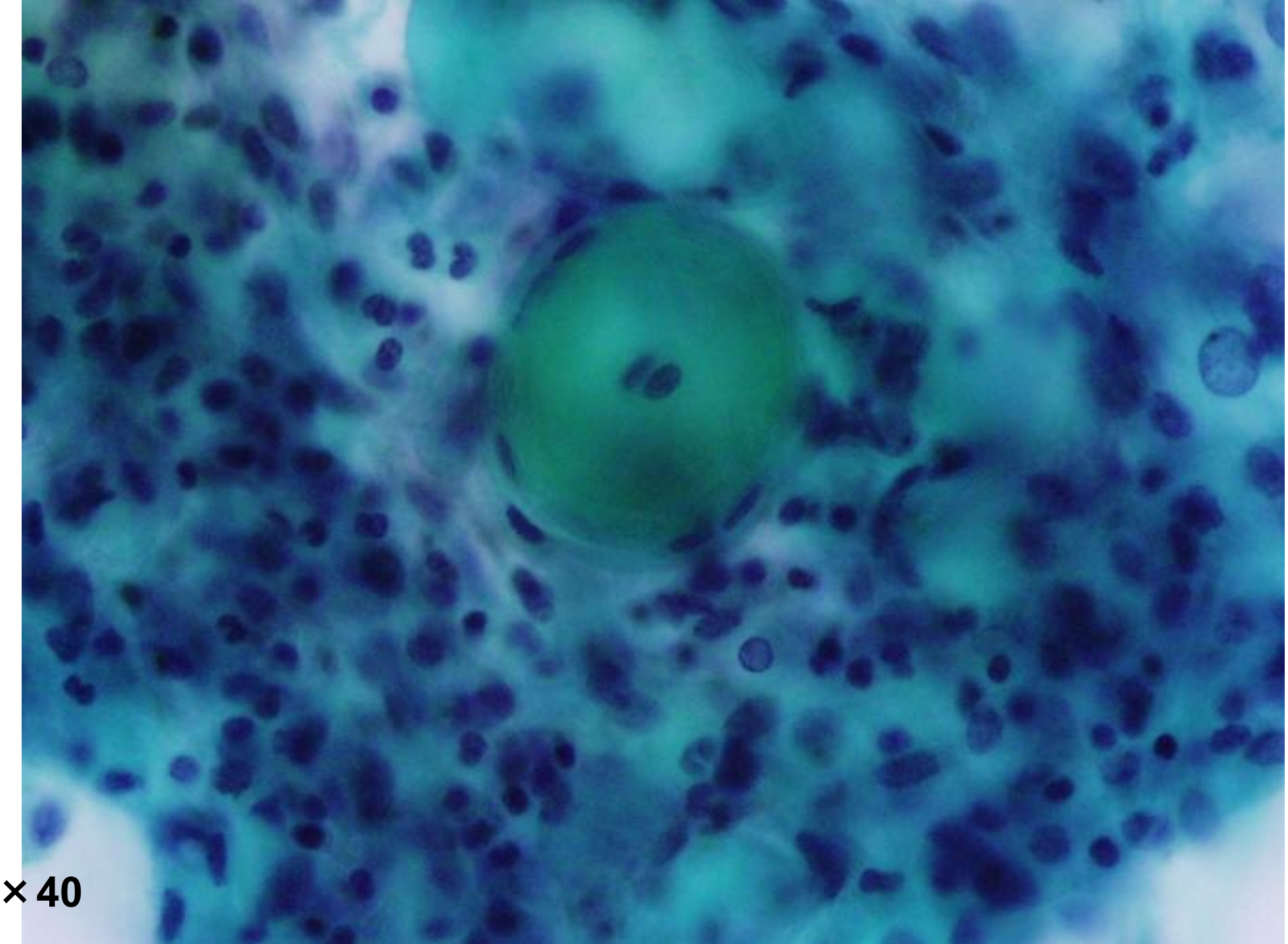

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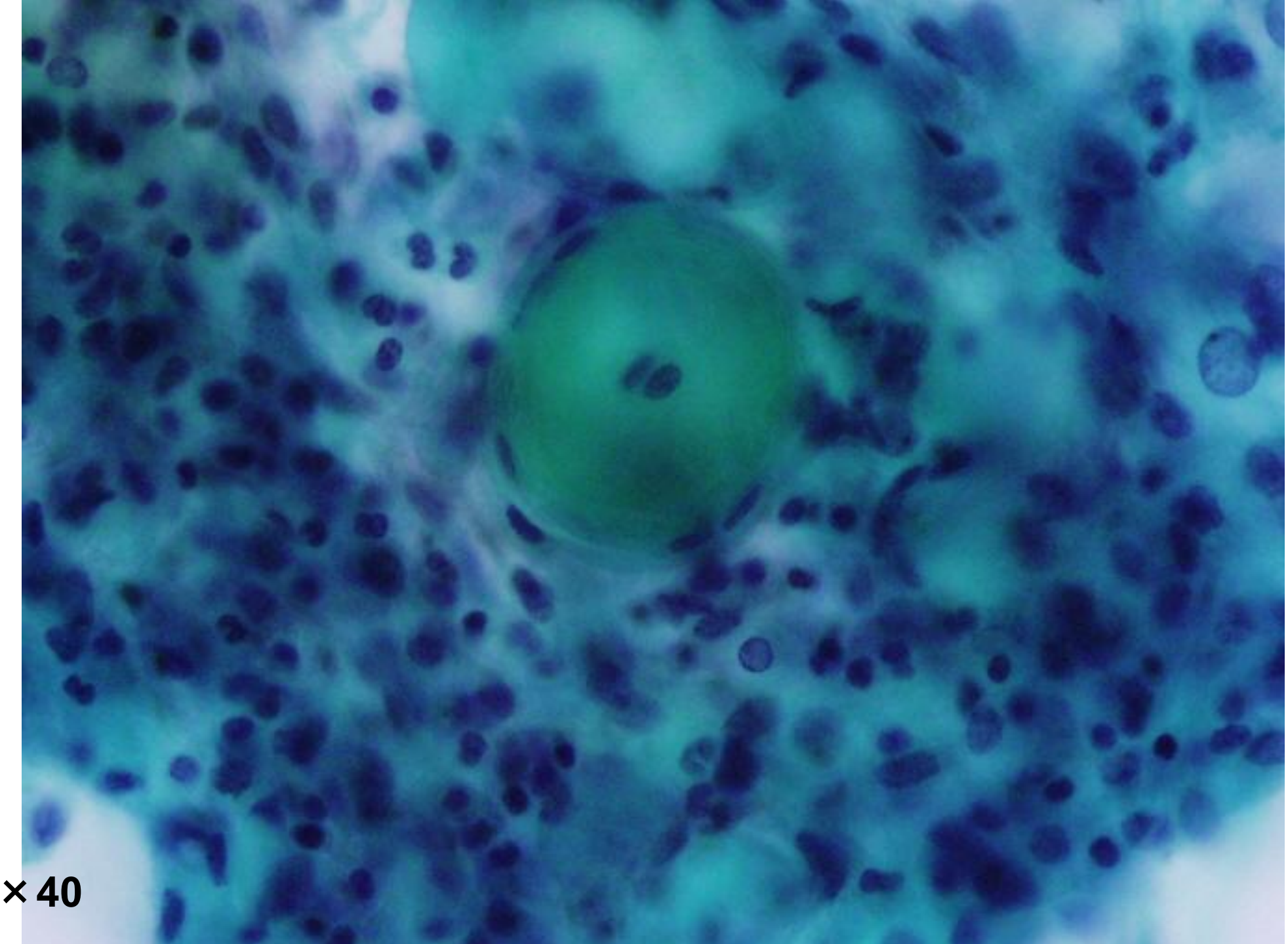

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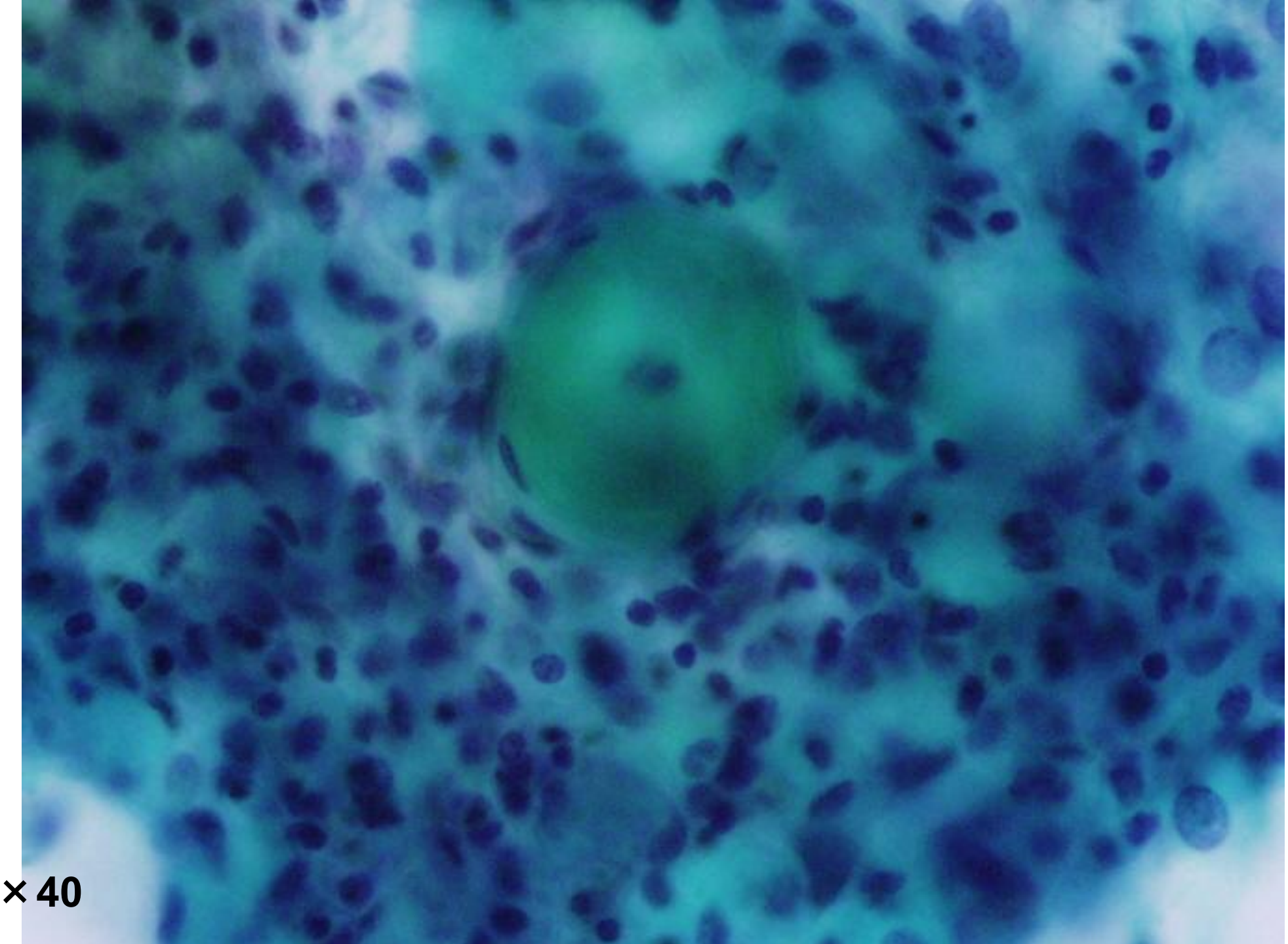

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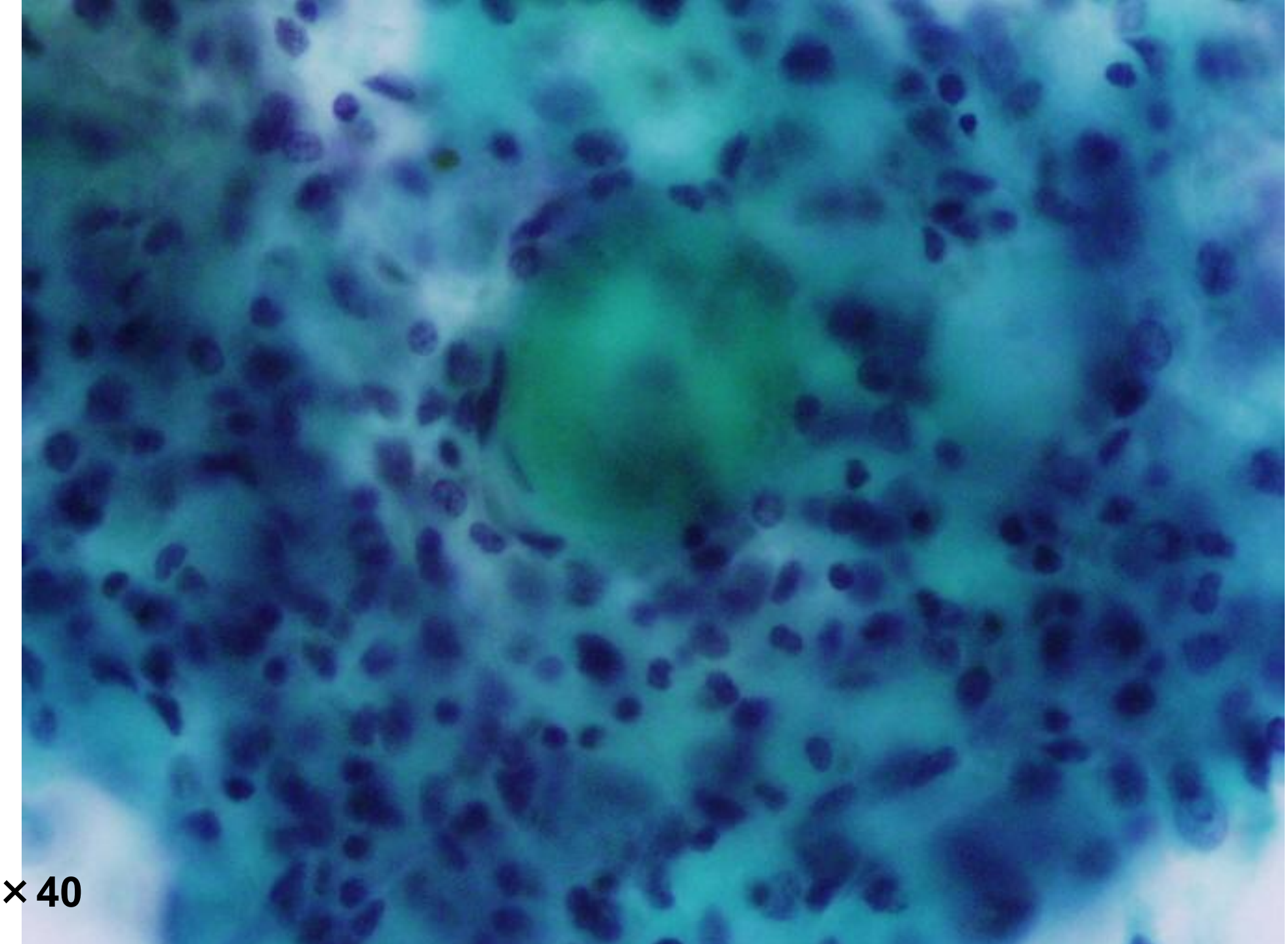

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