

# Atypical proliferative lesions diagnosed on core biopsy - 6 year review

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# Outline

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Definition and characteristics of atypical proliferative lesions

Risk of subsequent in situ and invasive cancer diagnosis and published rates of upgrading atypical lesions

Our study parameters

Results

Discussion and comparison to the literature

Further studies and recommendations

# Atypical Proliferative Lesions

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Atypical proliferative lesions of the breast can be challenging

Difficulties arise in both rendering an accurate histopathological diagnosis and in determining appropriate treatment and adequate follow up of such lesions

Aiming to avoid the burden of overtreatment balanced with early diagnosis

# Atypical Ductal Hyperplasia

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ADH is regarded as an intermediary entity between benign and malignant disease

Non-obligate part of the hyperplasia-atypia-LG DCIS pathway

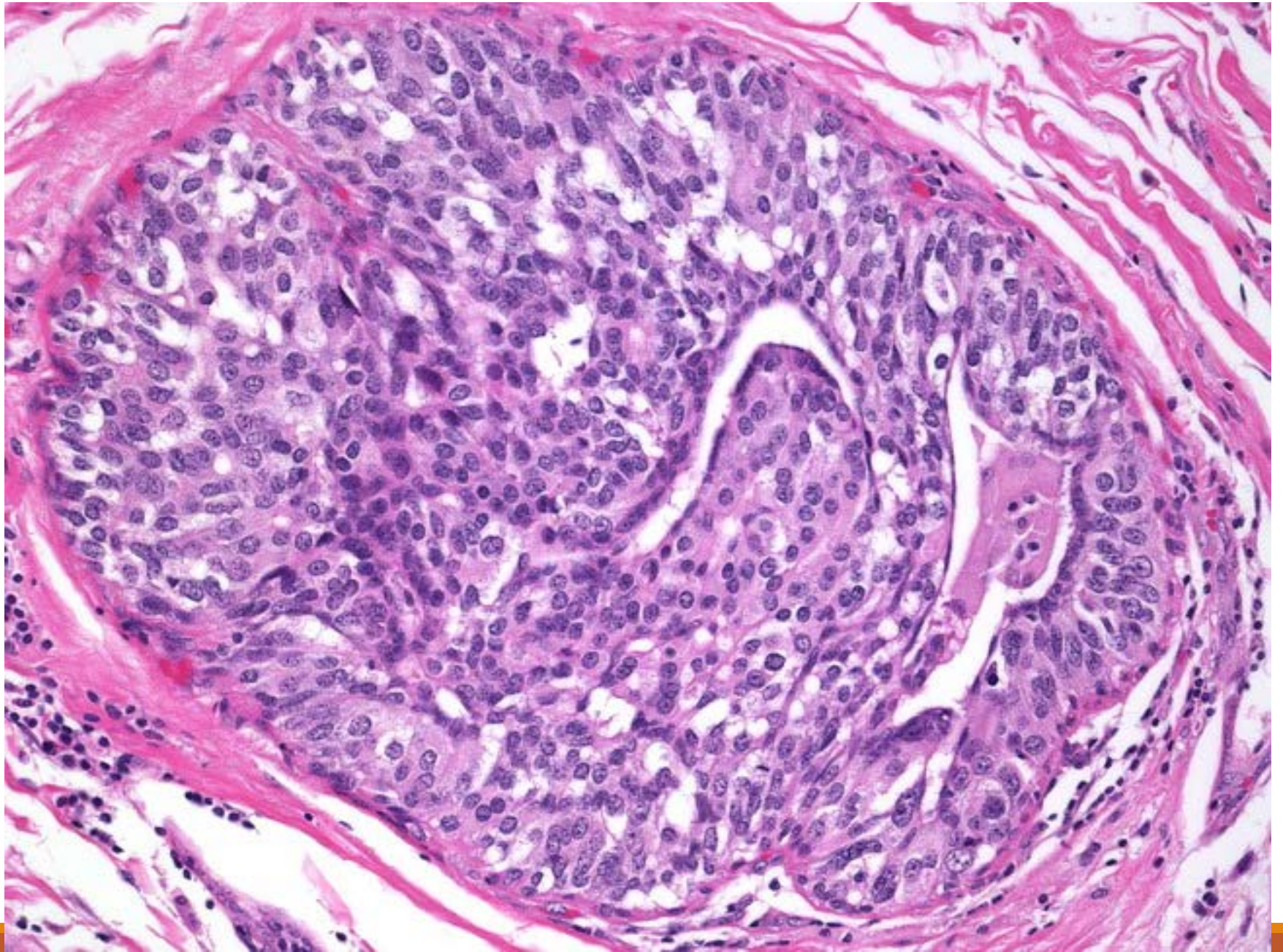
# Atypical Ductal Hyperplasia

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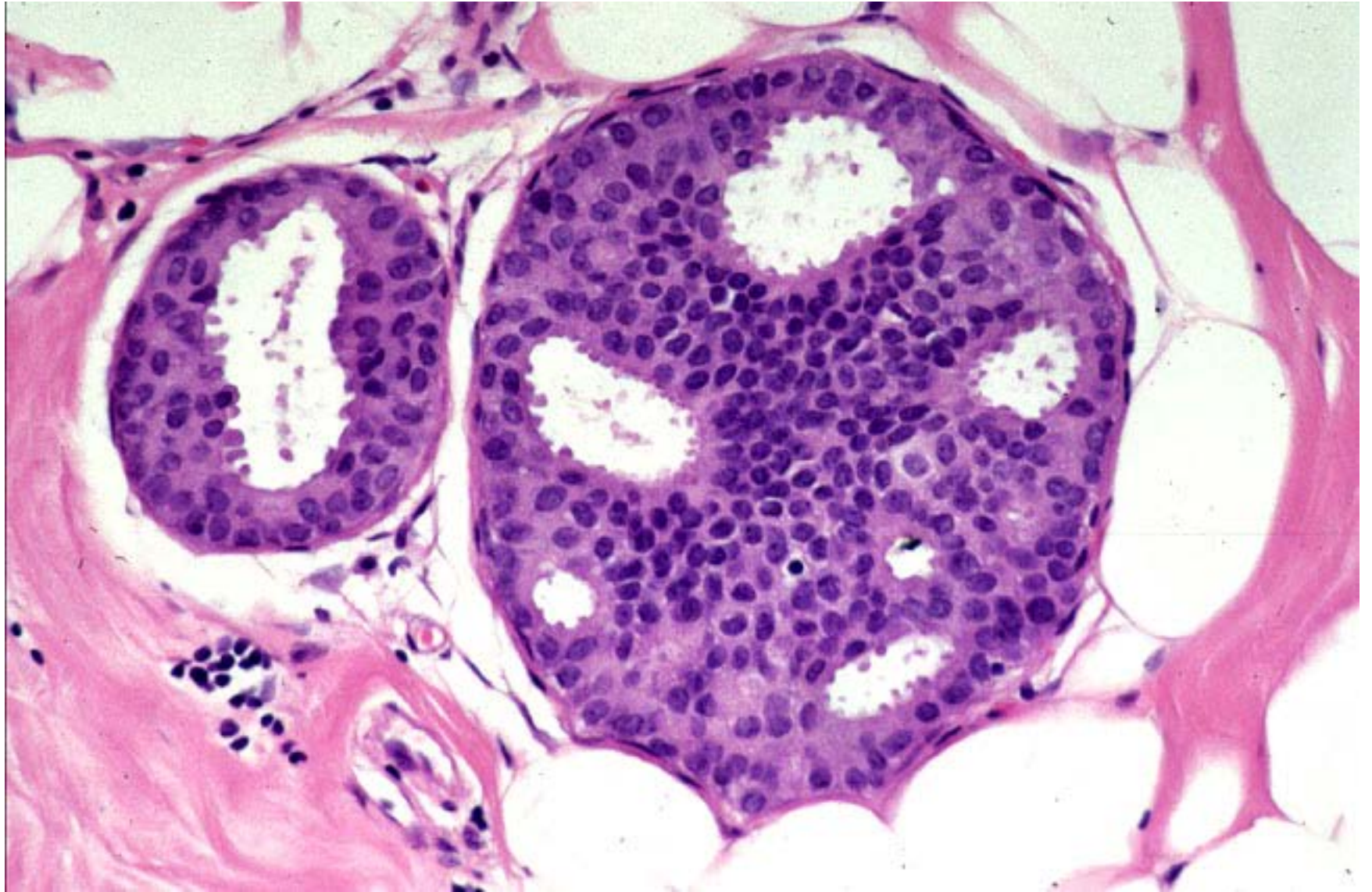
Histopathological features can have similarities between both atypical ductal hyperplasia and low grade DCIS

Three components to a diagnosis of ADH

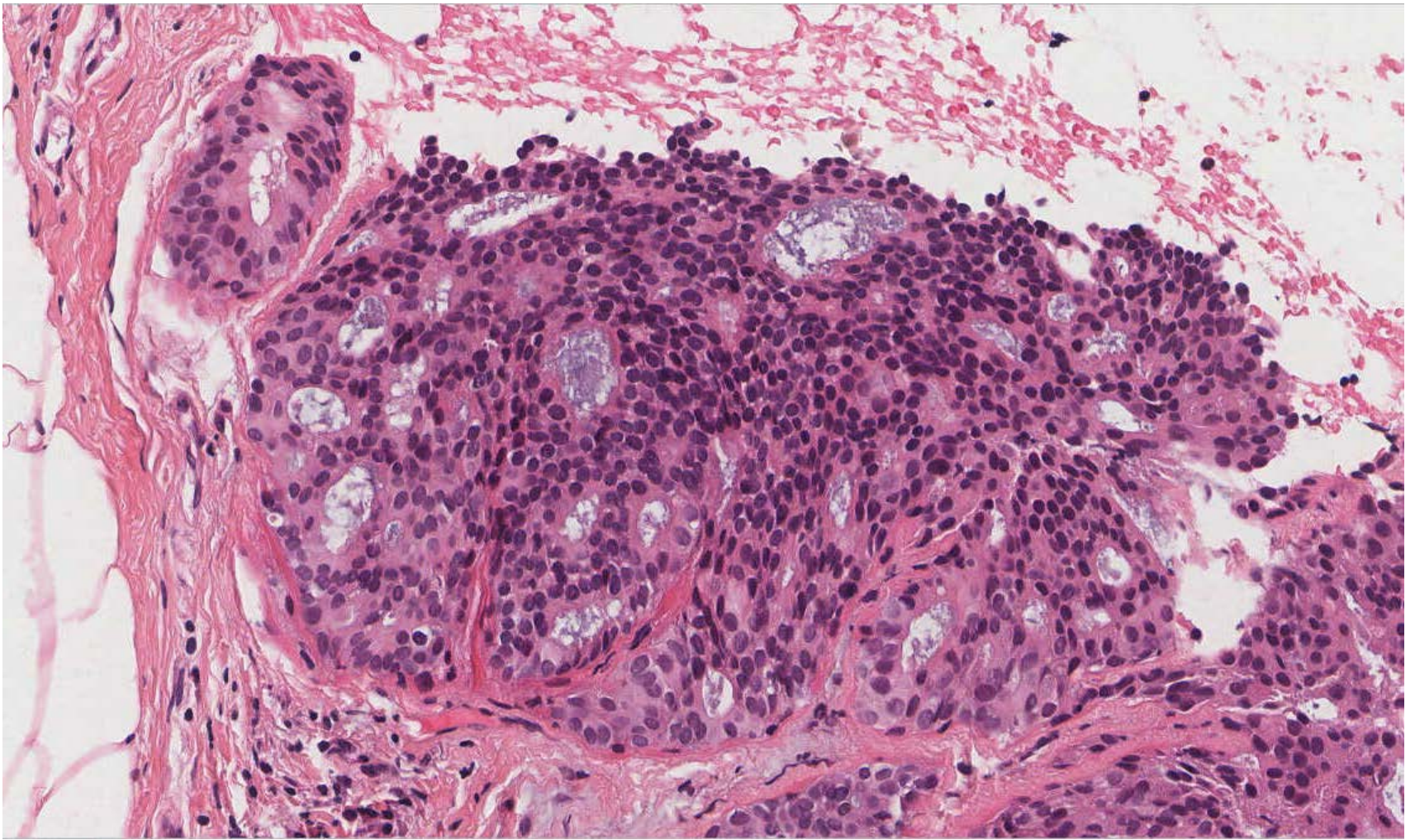
- Architectural pattern
- Cytology
- Disease extent

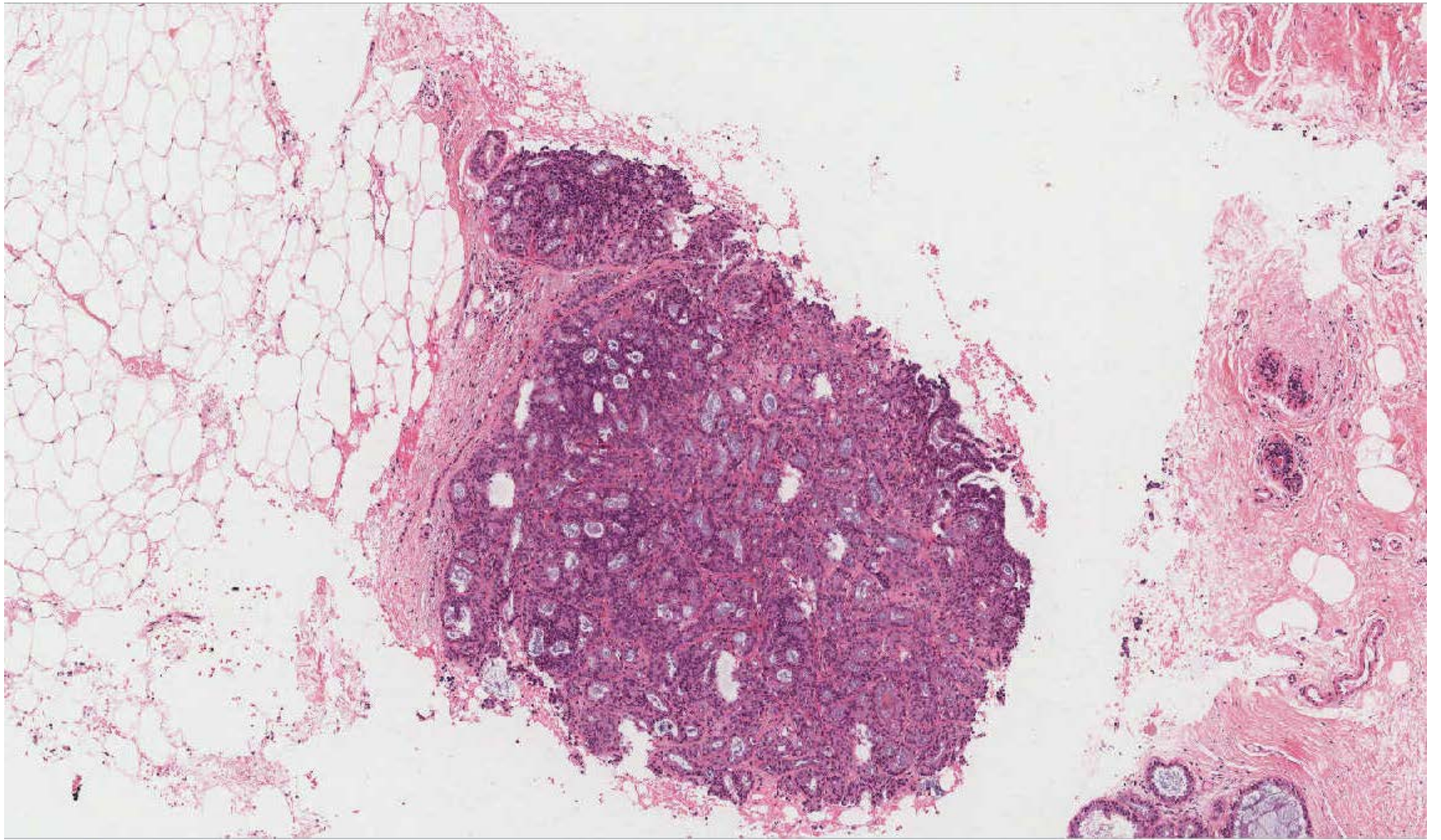


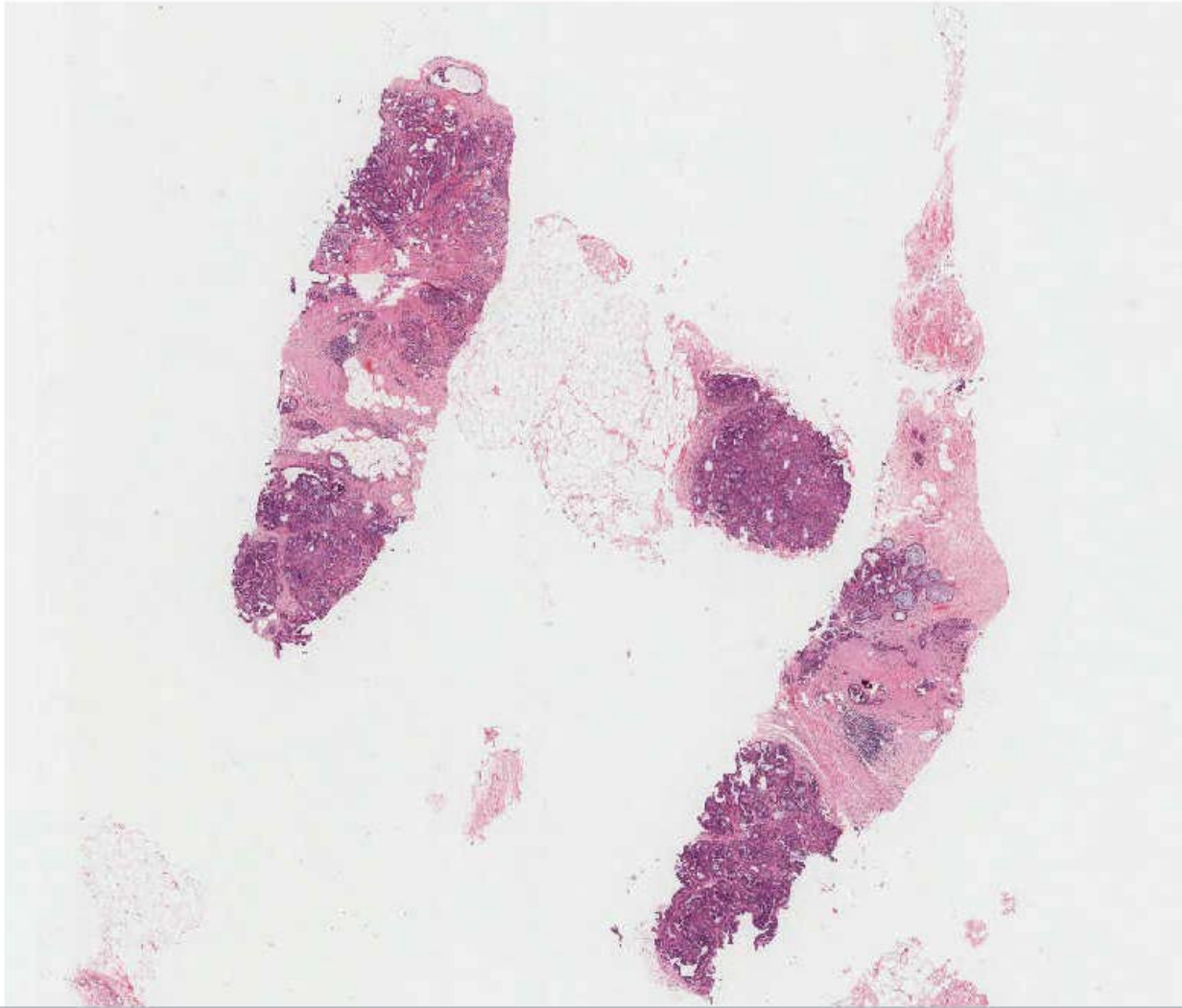












# Atypical Ductal Hyperplasia

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Due to the biological similarities between ADH and DCIS, excision is often offered

The rate of upgrading ADH to DCIS or invasive carcinoma on subsequent open biopsies or excisions ranges from 17-41%<sup>1</sup>

ADH is associated with an increased risk of future in situ or invasive malignancy with the cumulative incidence approaching 30% at 25 years follow up<sup>2</sup>

1. Kohr *et al*, Risk of upgrade of ADH after stereotactic breast biopsy. Radiology 2010

2. Degnim *et al*. Stratification of breast cancer risk in women with atypia. J Clin Oncol 2007

# Our study

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Audit of all breast screen core biopsies - 2012-2017 Breastscreen NSW  
Hunter New England

Epithelial hyperplasia with atypia, including ADH, and all cases of low  
grade DCIS

Reviewed all histology, type & size of lesions, size & type of core biopsy,  
radiology data available to us

Examined subsequent open biopsies, WLE/mastectomies

Examined rate of concordance, upgrading, downgrading

# Study Demographics

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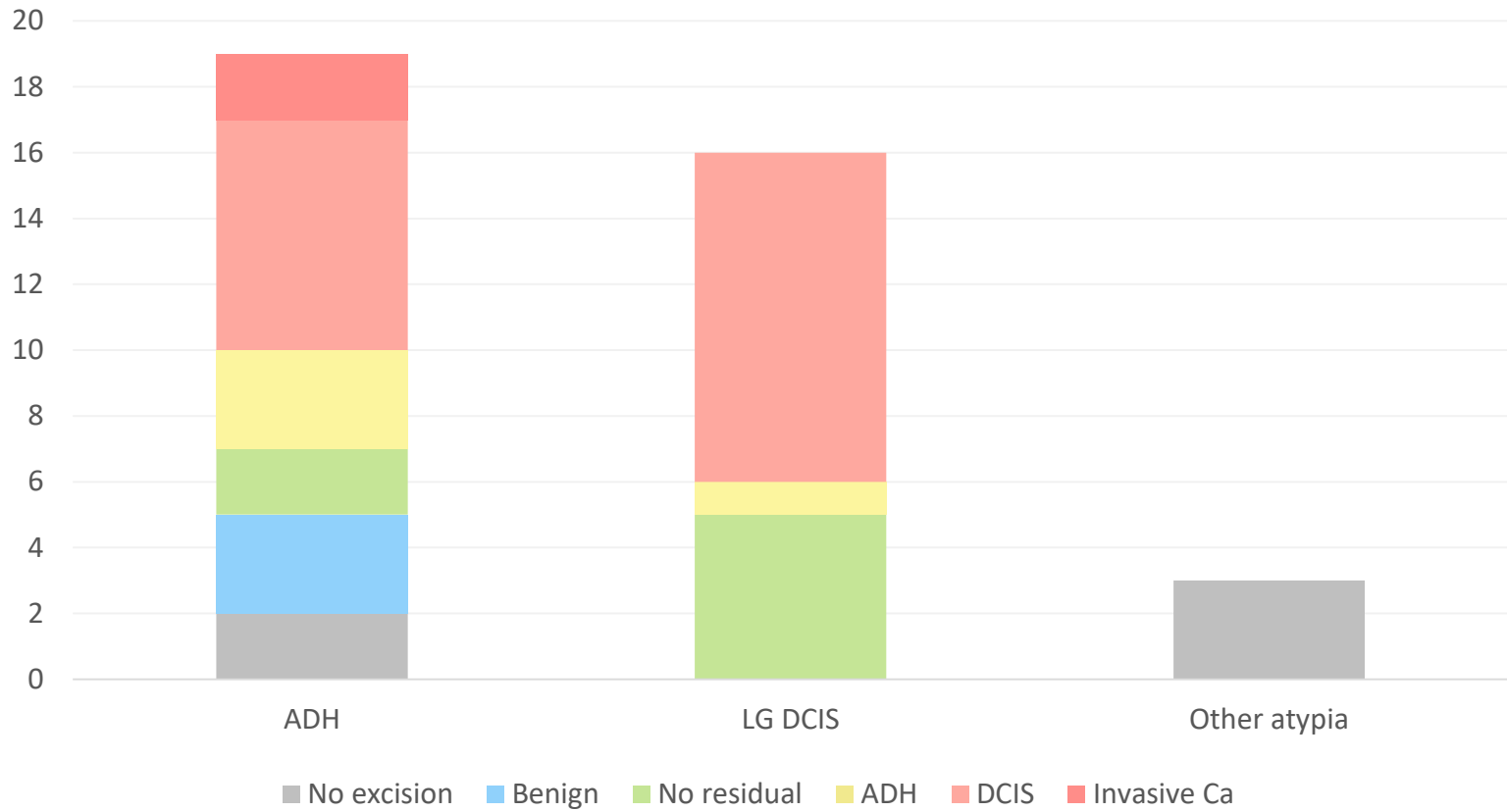
Total core biopsies 2012-2017: 1031

- ADH 19 cases (1.65%)
- Low grade DCIS 16 cases (1.55%)
- Other atypia 3 cases (0.29%)

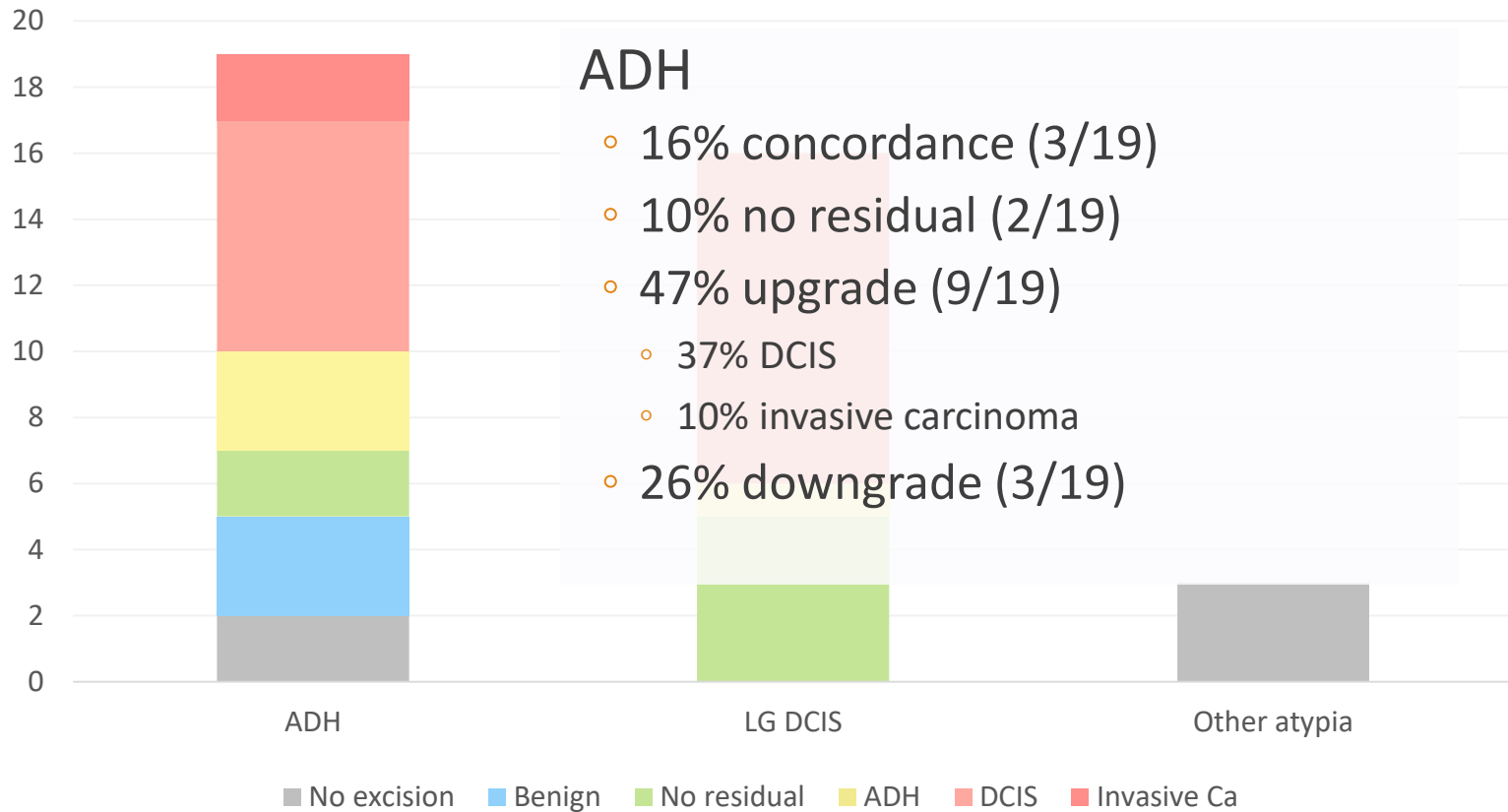
ADH: mean age 57.84

DCIS: mean age 66.75

# Results

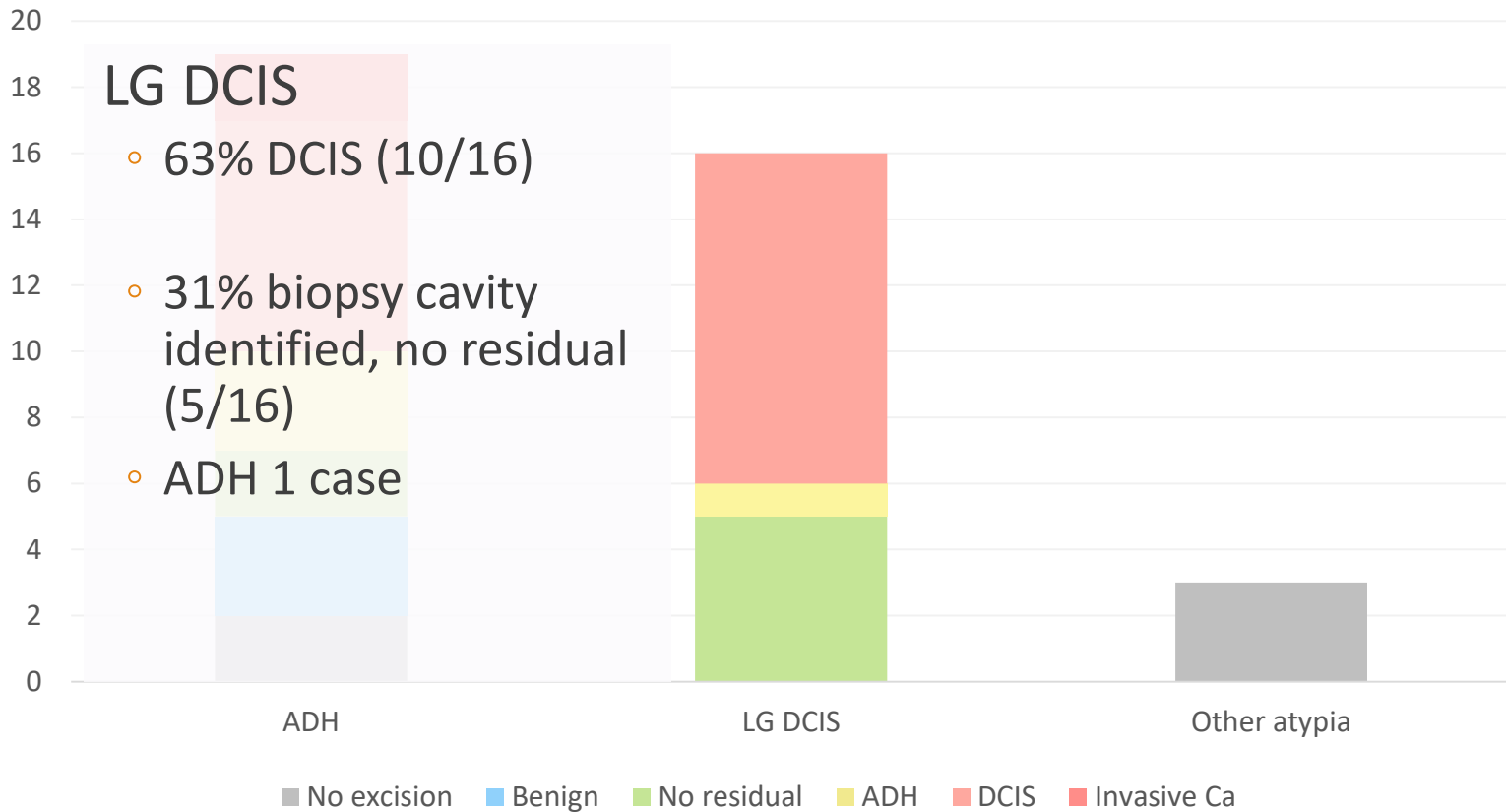


# Results

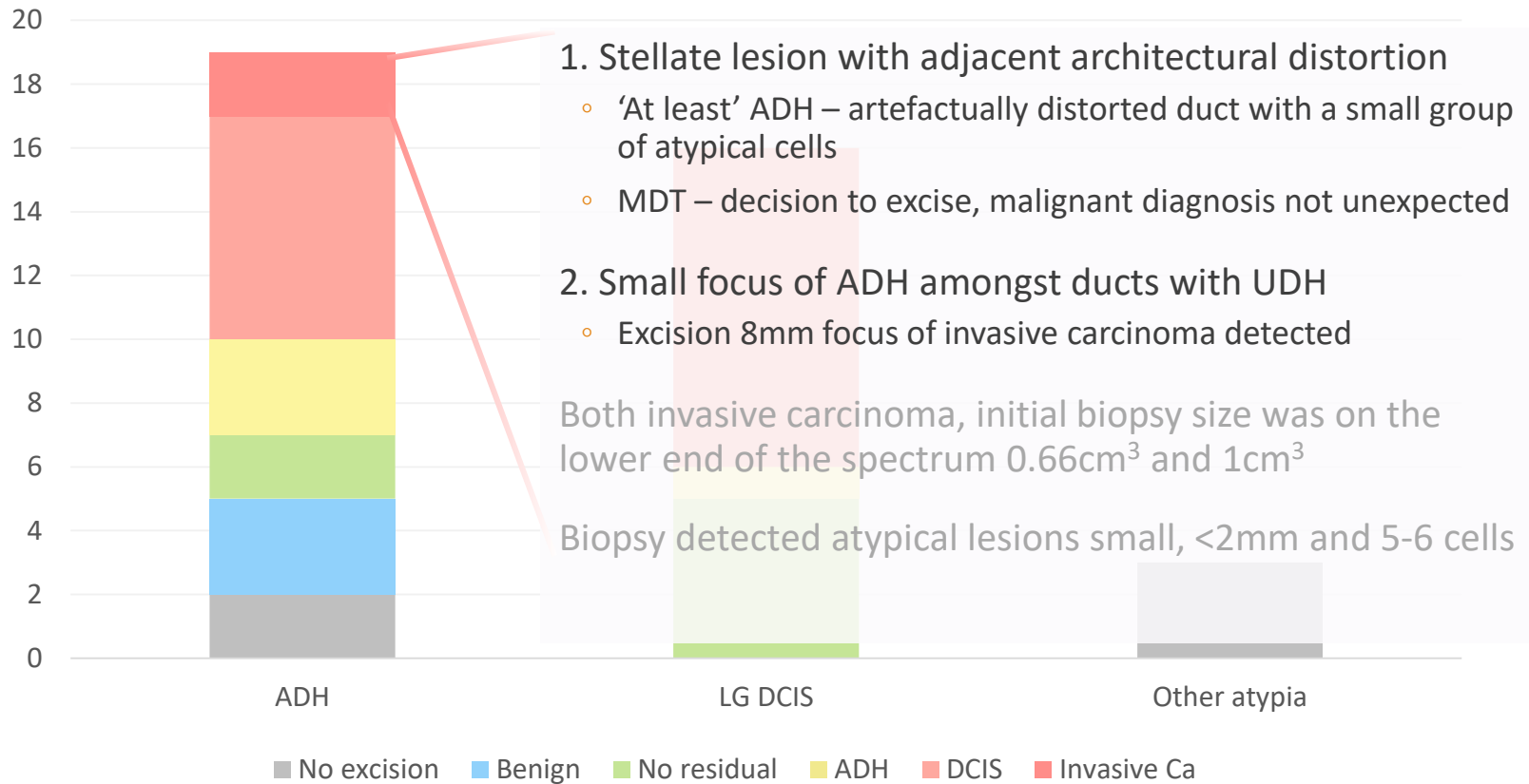




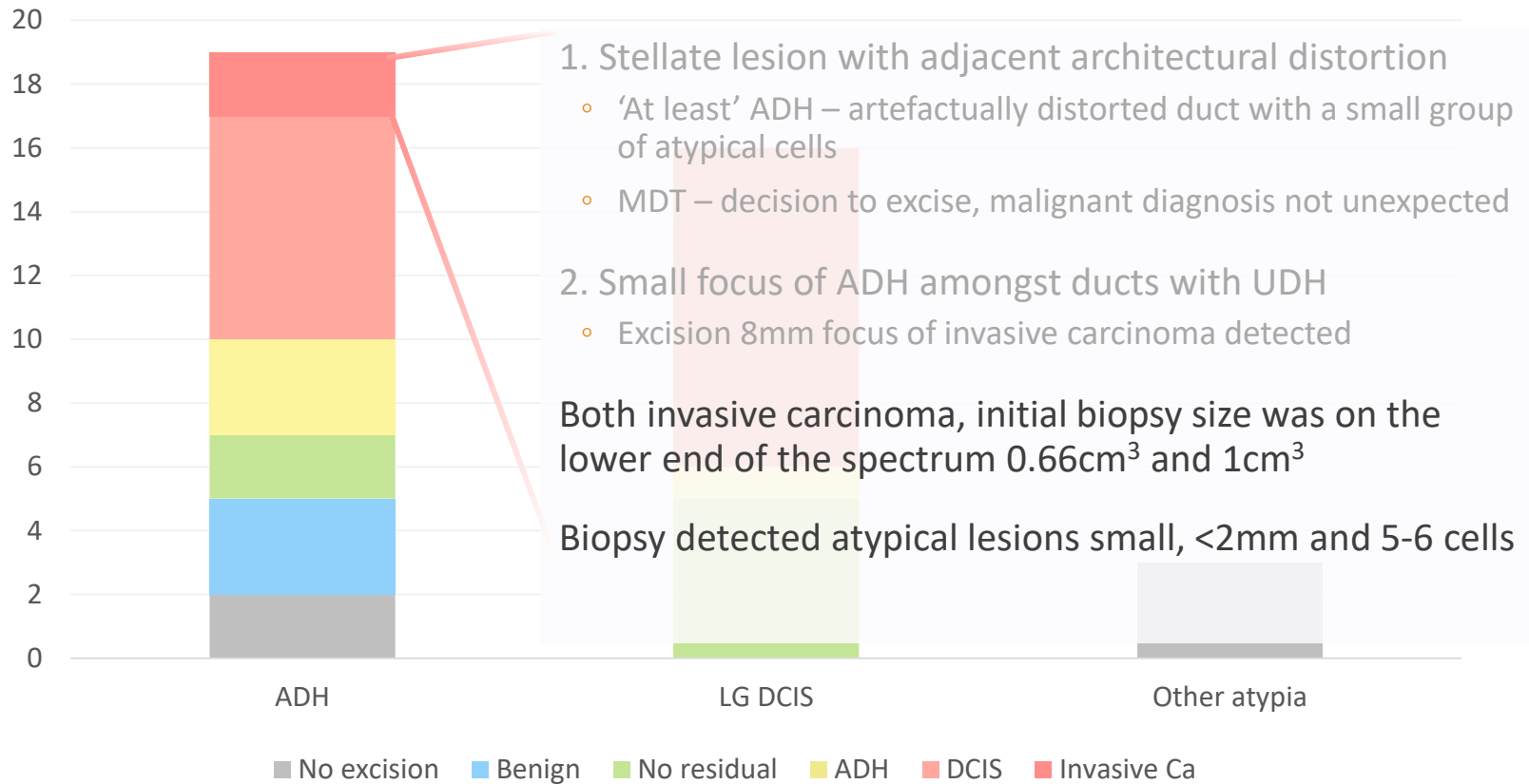
# Results



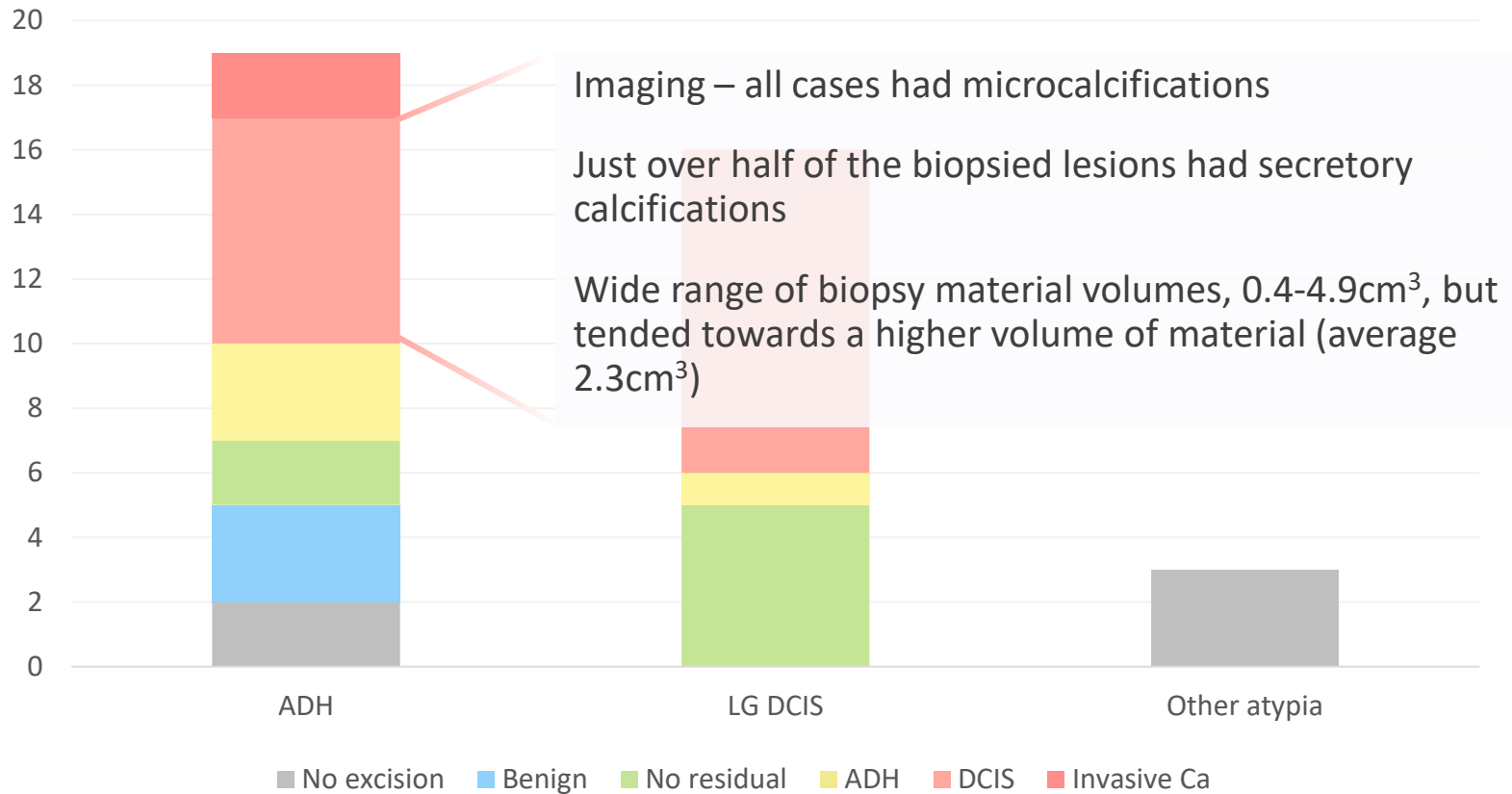
# Results and Discussion



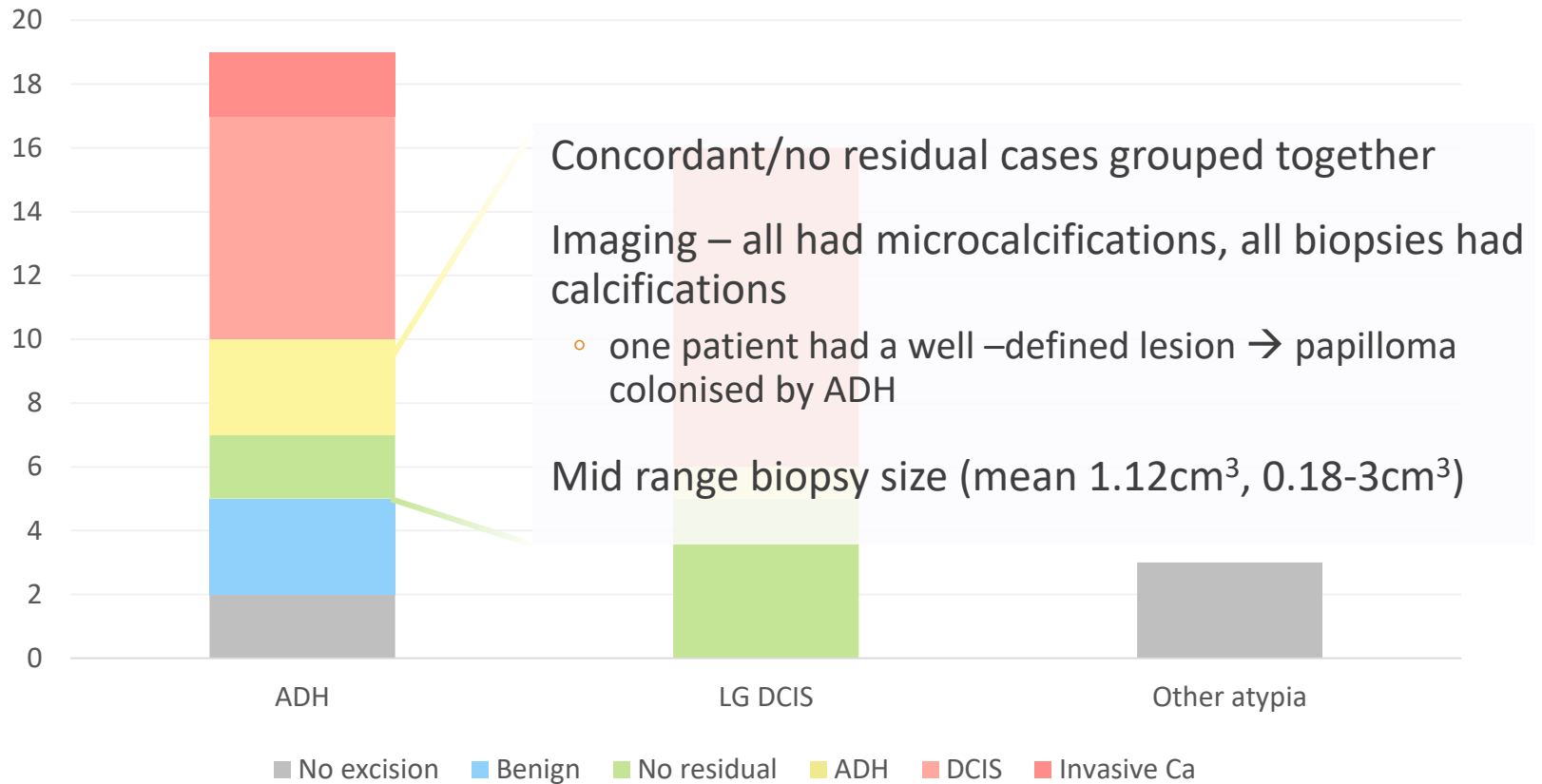
# Results and Discussion



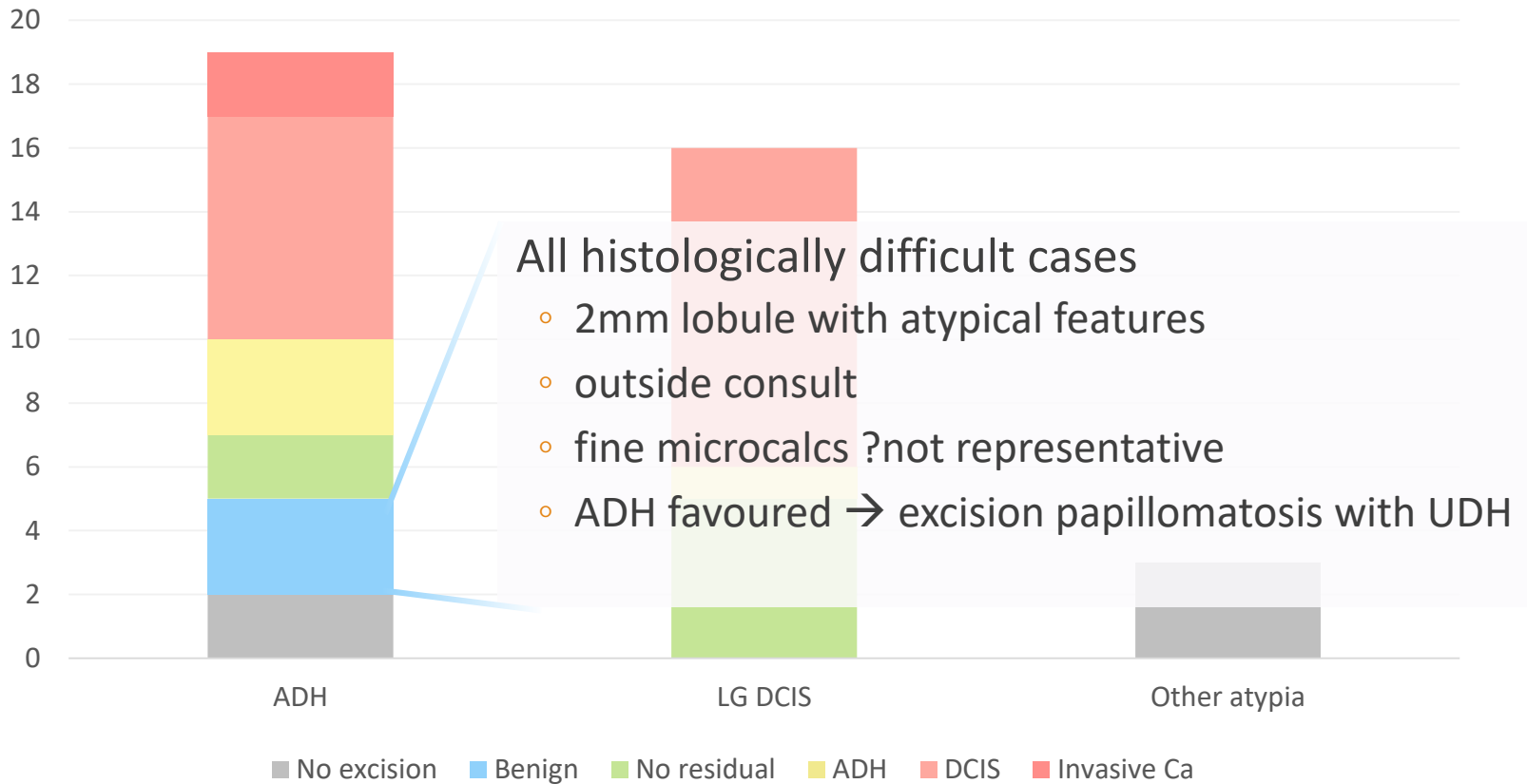
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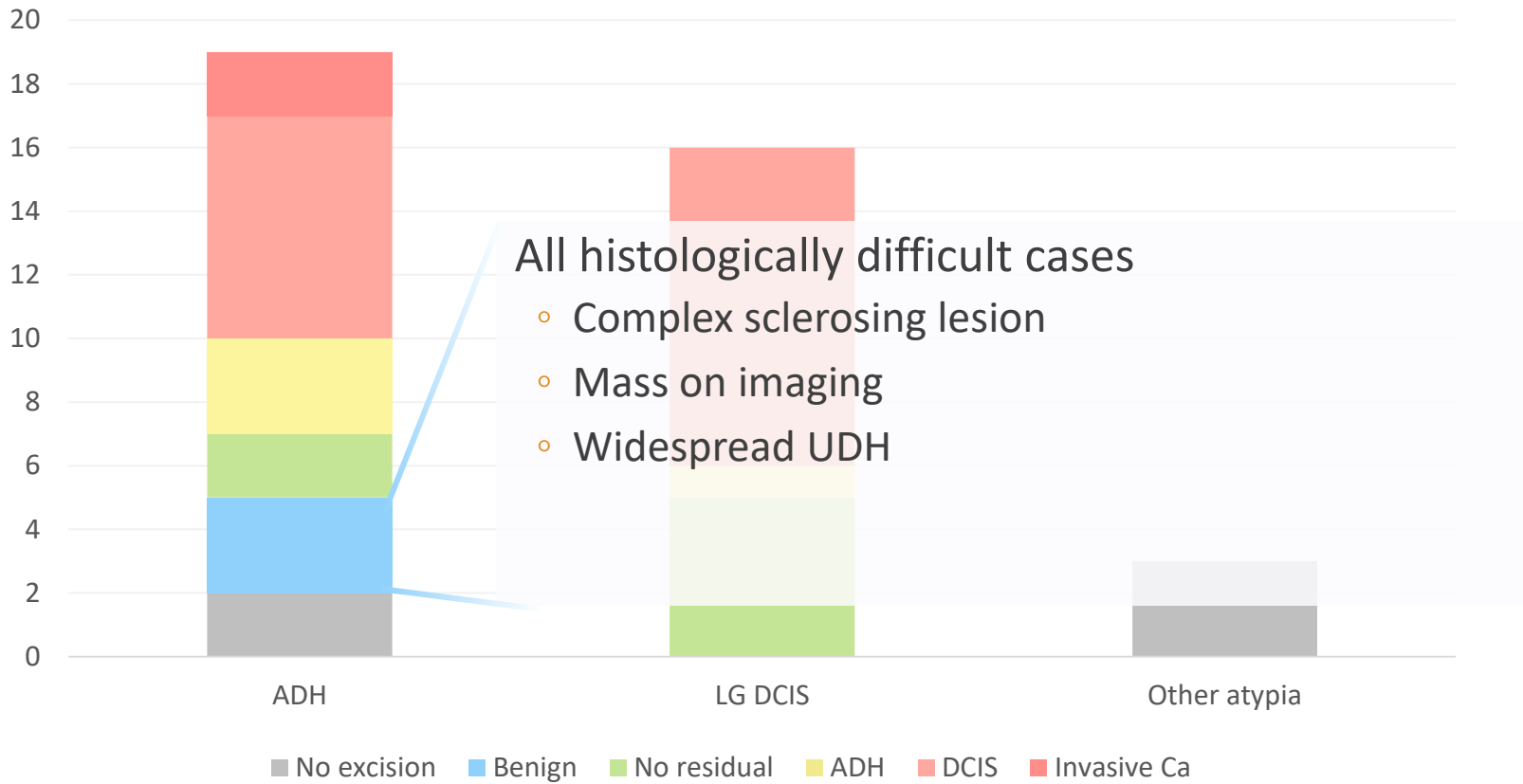
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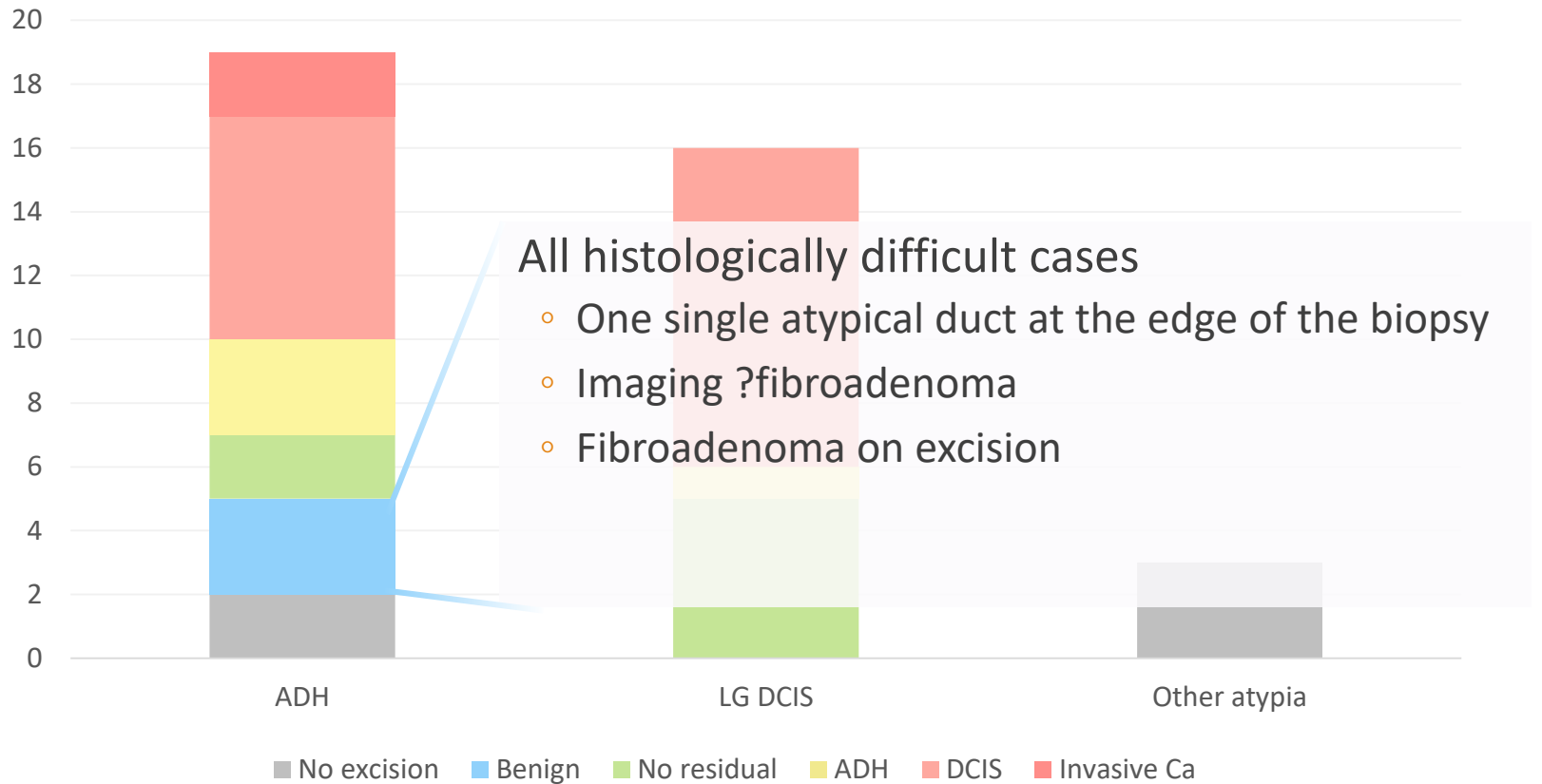
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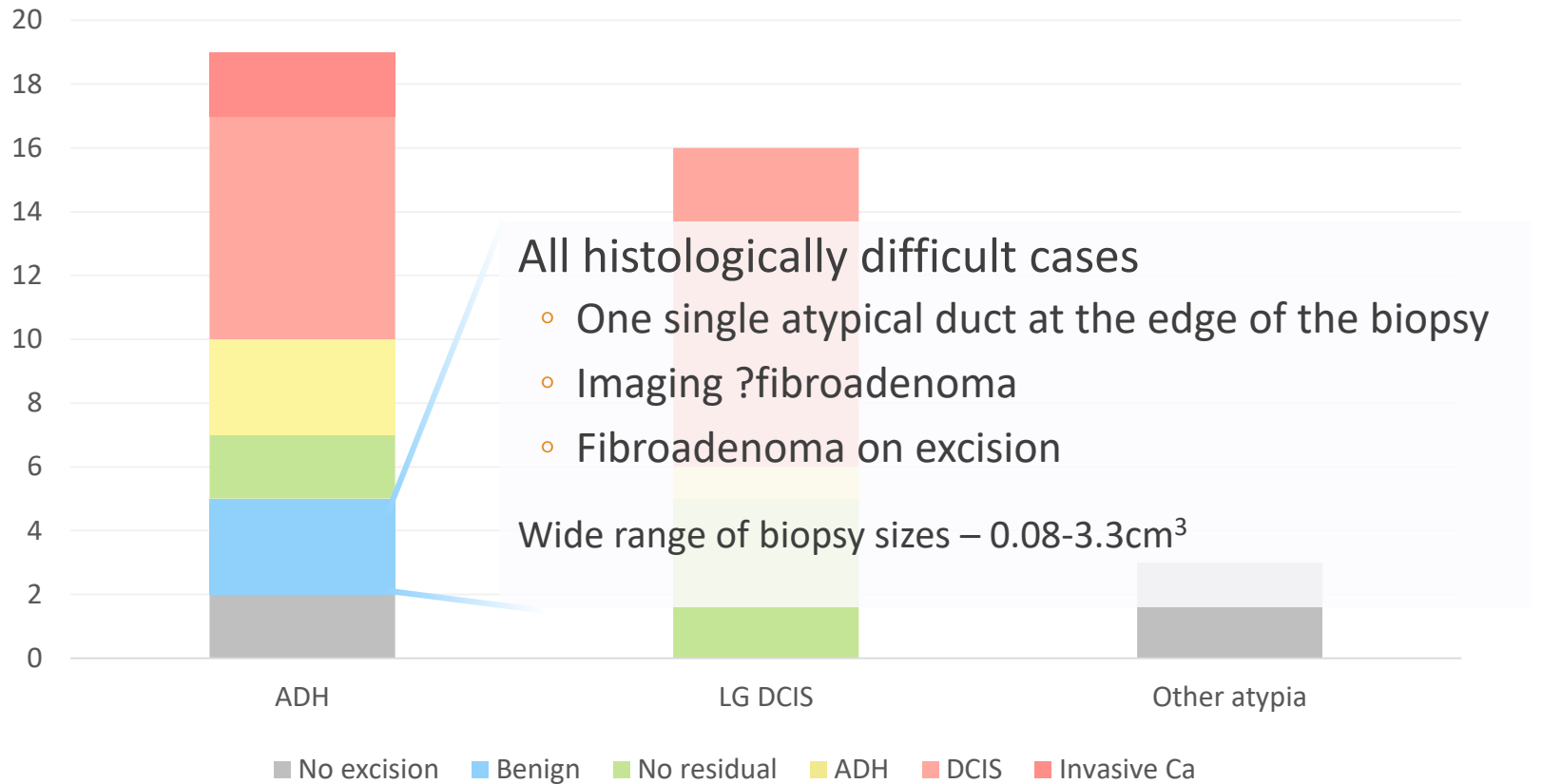


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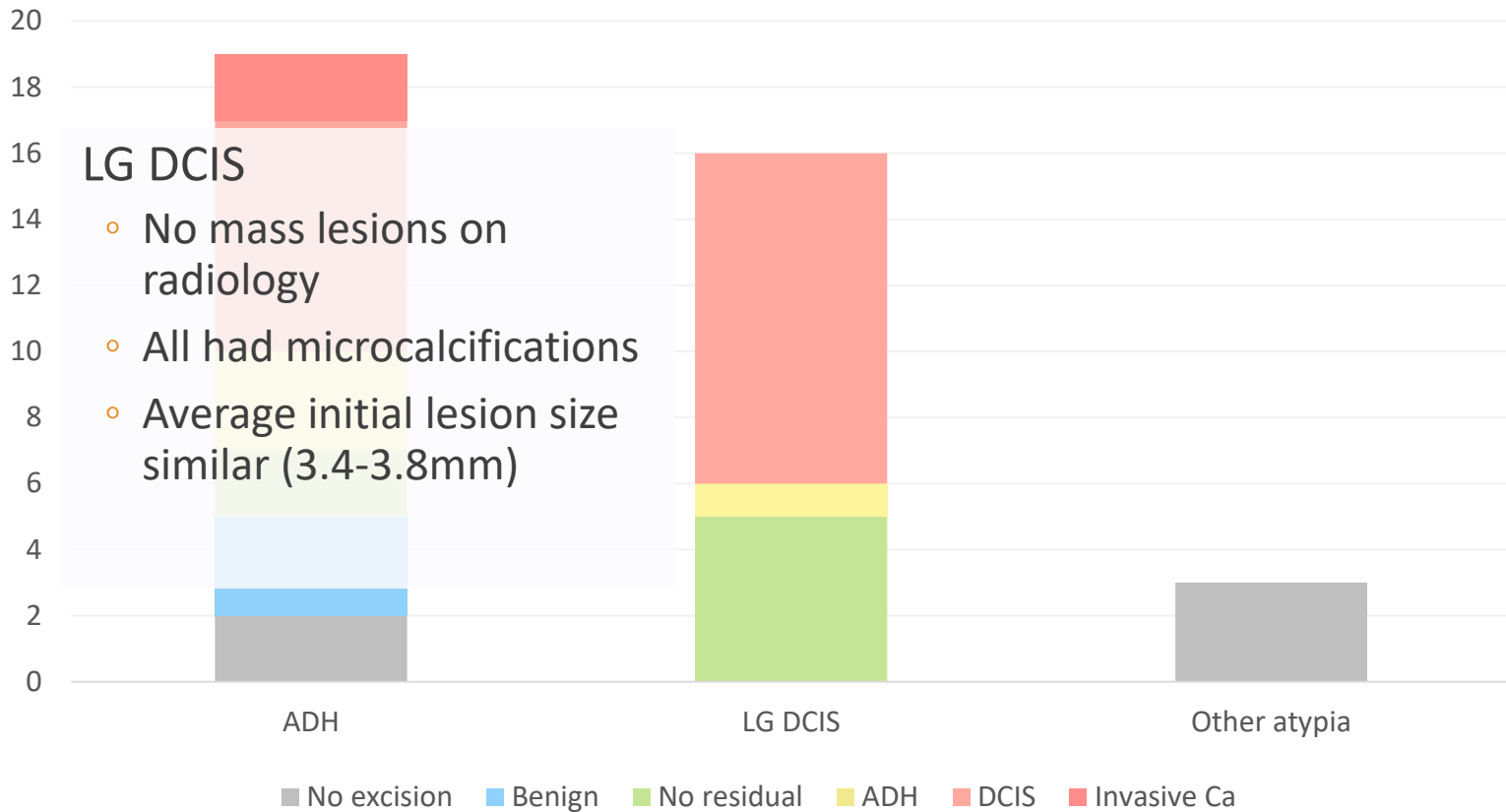




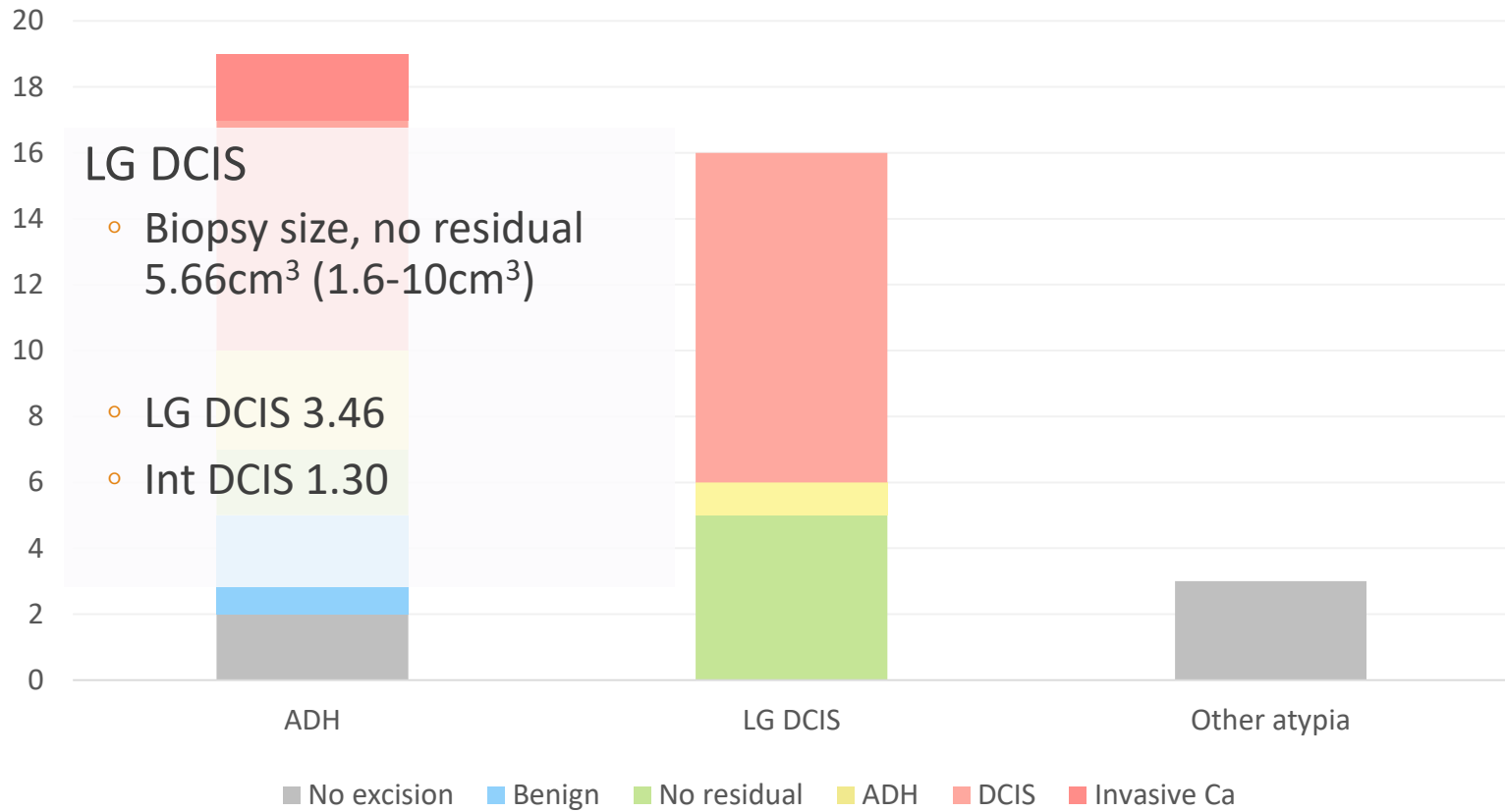
# Results and Discussion



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# Conclusions

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Our ADH upgrade rate (limited cases) 47% (9/19), published rates vary 17-41%

Importance of correlating clinical, radiological & pathological findings – triple test

- Stellate lesions, correlate microcalcifications on imaging and location in specimens

Biopsy size is important

- Vacuum assisted and larger biopsy sizes associated with higher rates of concordance with ADH and DCIS
- However, increases likelihood of 'biopsy-excision' with no residual

# Conclusions

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Centres worldwide have similar difficulties with atypical epithelial hyperplasia, risking overtreatment or underdiagnosis of DCIS

Common predictors for upgrading ADH to DCIS or invasive carcinoma

- Size of biopsy
- Mammography architectural distortion
- Clinical symptoms, palpable mass
- Initial radiological size >15mm
- Residual calcifications post-biopsy
- Multiple foci >3
- Marked cytological atypia

# Further directions

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Continue to analyse data from ongoing Breastscreen core biopsies

Continued follow up of patients from this series

Interested in collaborating with other Breastscreen services statewide and nationally

# Acknowledgements

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Breastscreen NSW Hunter New England

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