

**THE SITE ,SIZE AND DEMOGRAPHICS OF RUPTURED
ANEURYSMS AT TWO LARGE CENTRAL HOSPITALS IN
JOHANNESBURG**

**By
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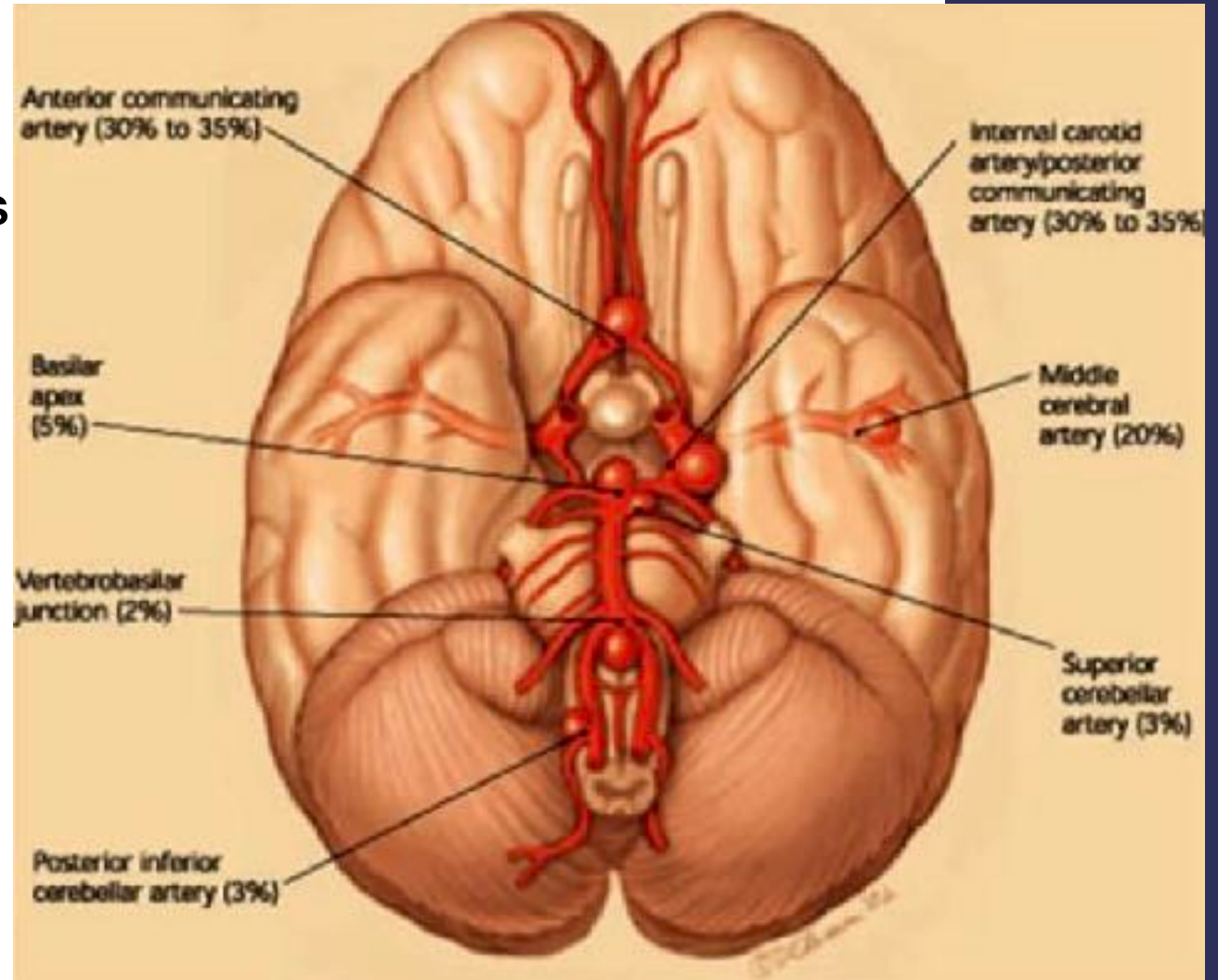


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BackGround

- Anterior circulation aneurysms occur commonly
- 86.5 %
- AcomA 30 %
- PCom A 25 %
- MCA bifurcation 20%
- IcA bifurcation 7.5
- Pericallosal /callosomarginal artery bifurcation
- Posterior circulation 5-15%
- 20-30% multiple aneurysm.



Methods and material

- Retrospective chart review (June 2015 - July 2018) .
- Chris Hani Baragwanath hospital and Charlotte Maxeke Johannesburg Academic Hospital.
- Pacs radiology system , Excel.
- Descriptive stats to summarise data .



Cont..

- 250 angiograms and DSA were reviewed from June 2015-july 2018.
- Data for ruptured Aneurysm size ,site
- The aneurysm size based on measurement of the long axis of the aneurysm in a CTA or a DSA .
- Thrombosed aneurysms were difficult to measure, unruptured and were excluded from the study .
- Patient demographics : sex , age, race.
- Unruptured aneurysms excluded from the study.



Presentation

The most common clinical presentation of patients in both centres was

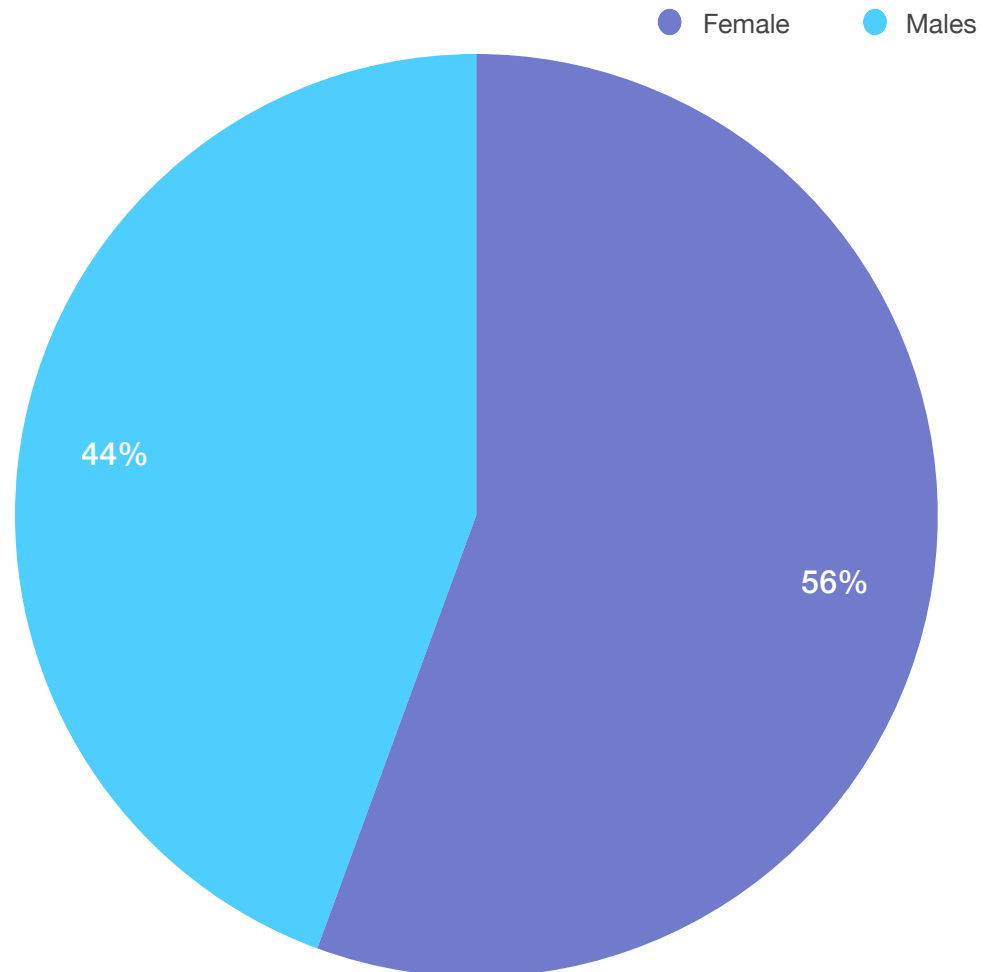
- *Severe headaches.
- *Major rupture
 - SAH
 - ICH
 - IVH
- *Mass effect with 3rd nerve palsy.
- *Post history of collapse with low GCS.
- *Neurological deficits .



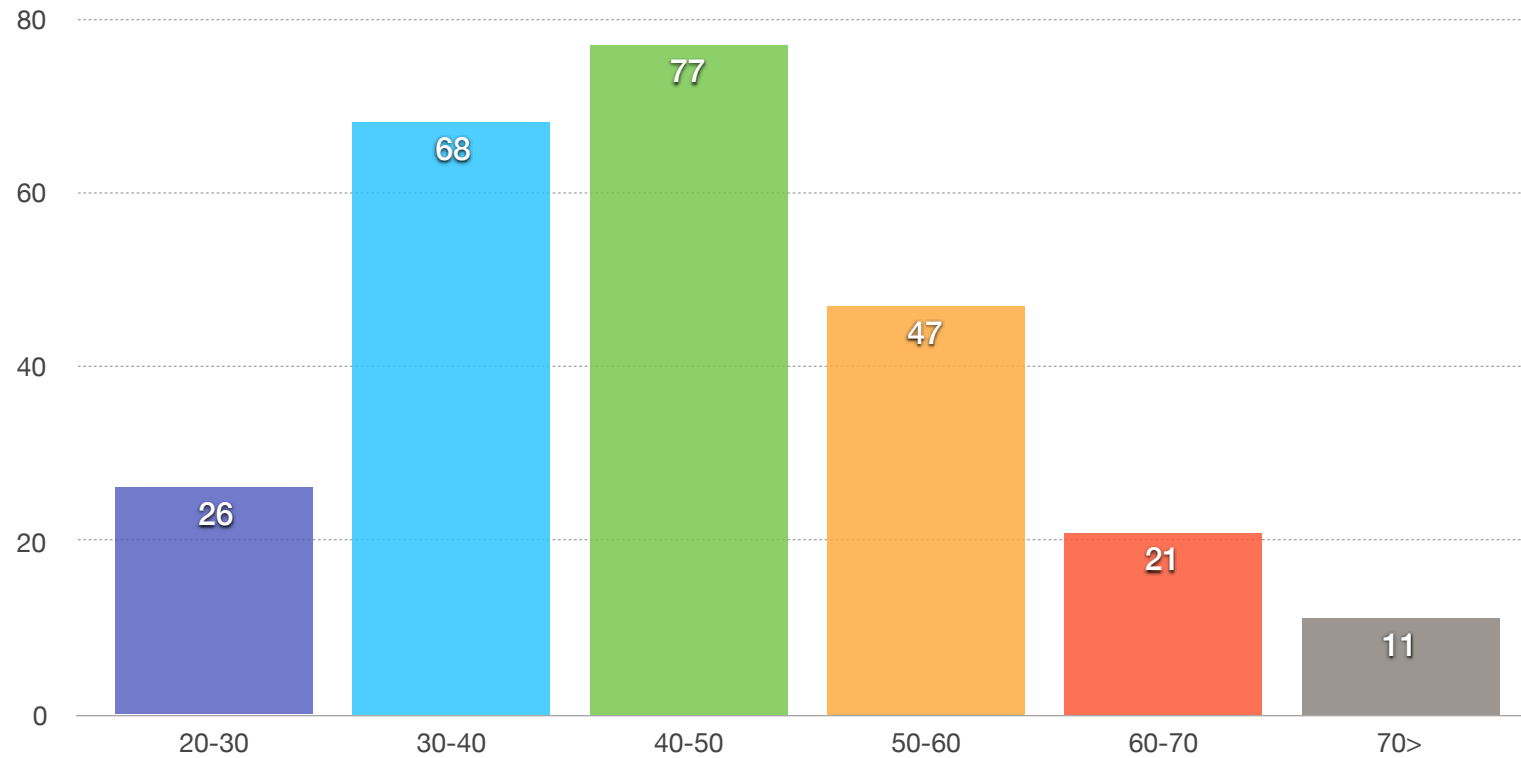
Total number of patients :250

Males :111

Females :139



AGE GROUPS

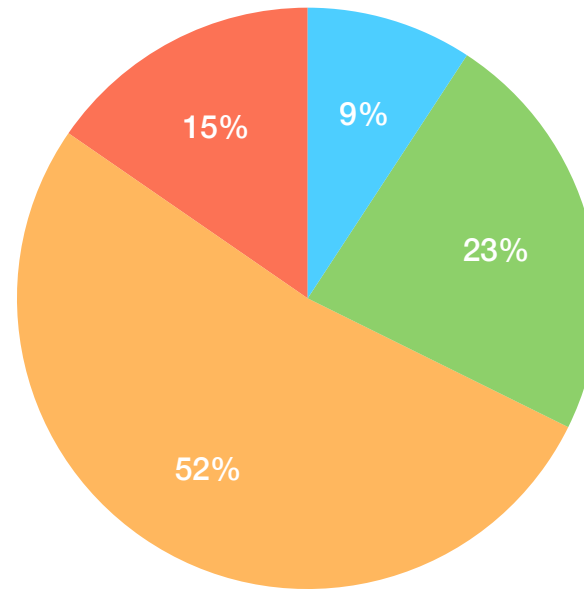
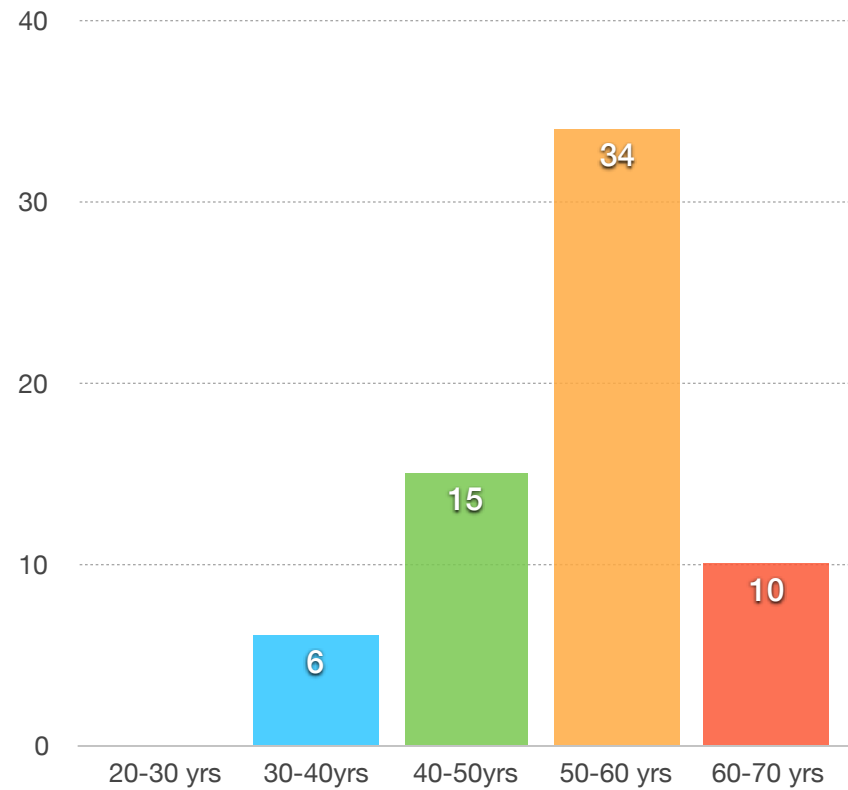


Site ,Size of ruptured aneurysm

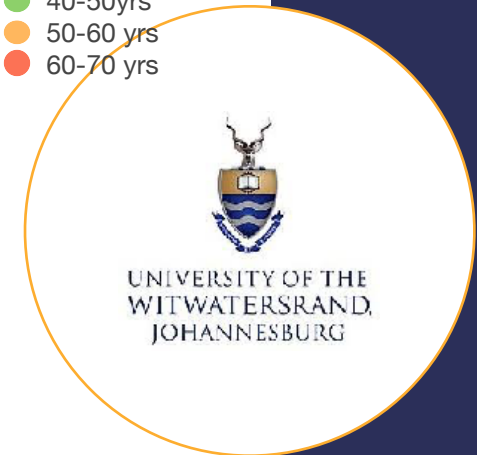
Site	2.5-4.5mm	5-6.5mm	7mm	7-13mm	Total
ACoM	15	45	5	4	69
MCA	42	15	6	0	63
PCoM	24	10	6	0	40
ICHB	20	12	0	4	38
Oph	5	2	0	0	7
AchIC	12	0	0	0	12
DACA	11	0	0	0	11
Basilar tip	2	4	0	0	6
SCA A	2	0	0	0	2
VA	0	2	0	0	2



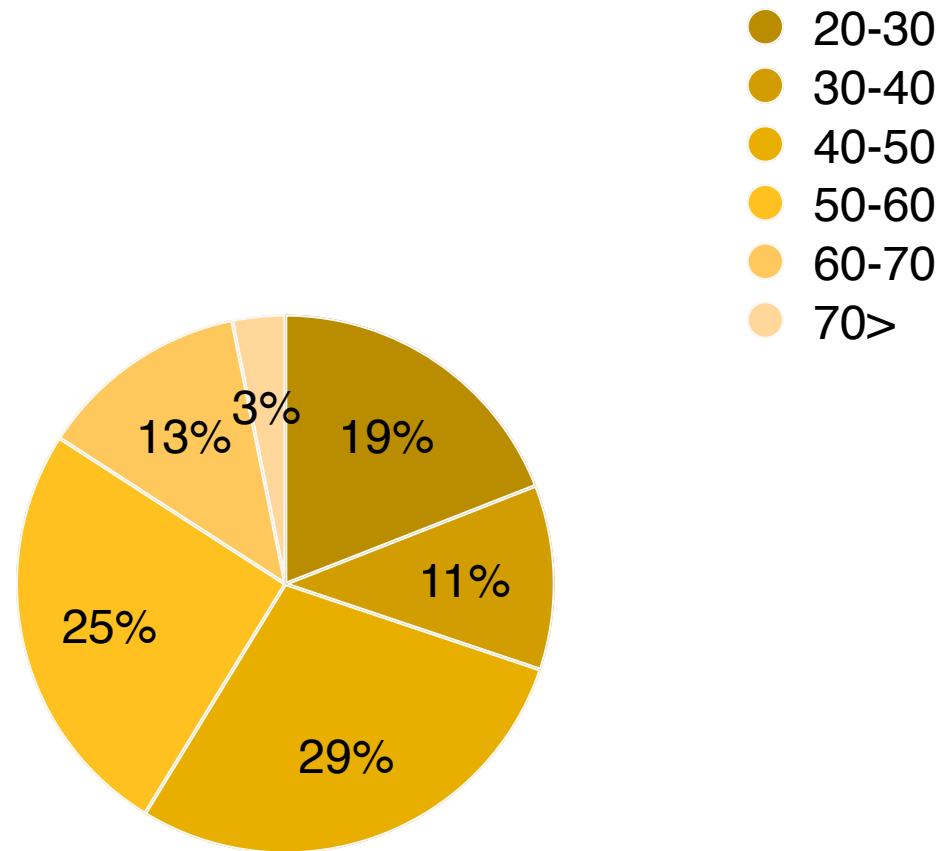
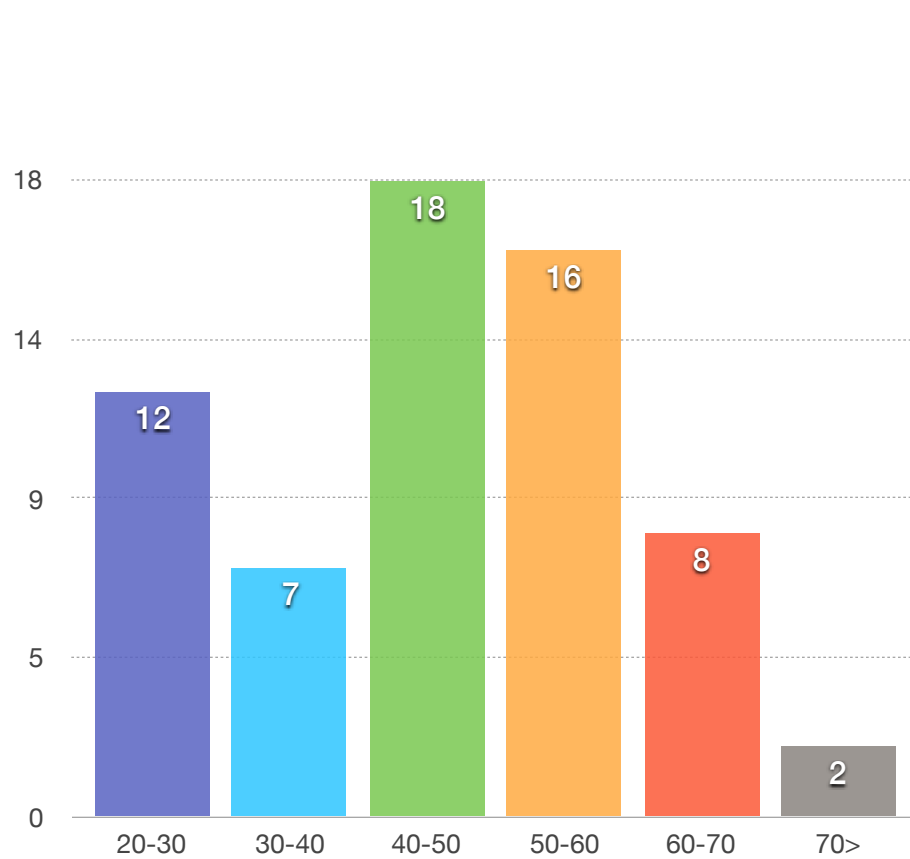
AGE VS Aneurysm location (AcomA)



- 20-30 yrs
- 30-40yrs
- 40-50yrs
- 50-60 yrs
- 60-70 yrs

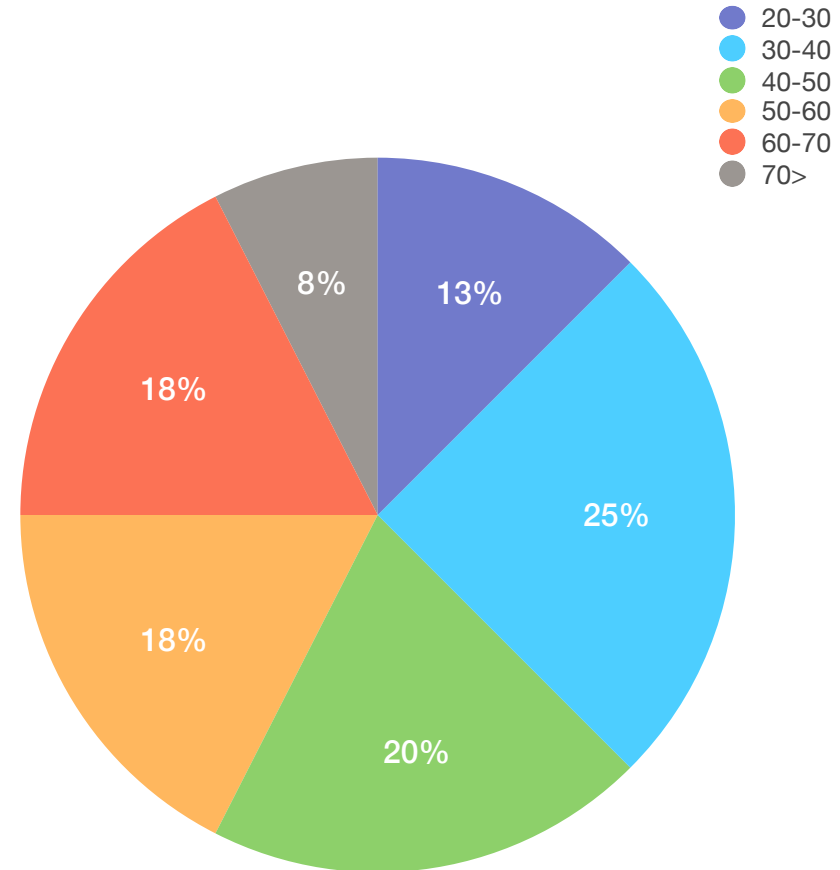
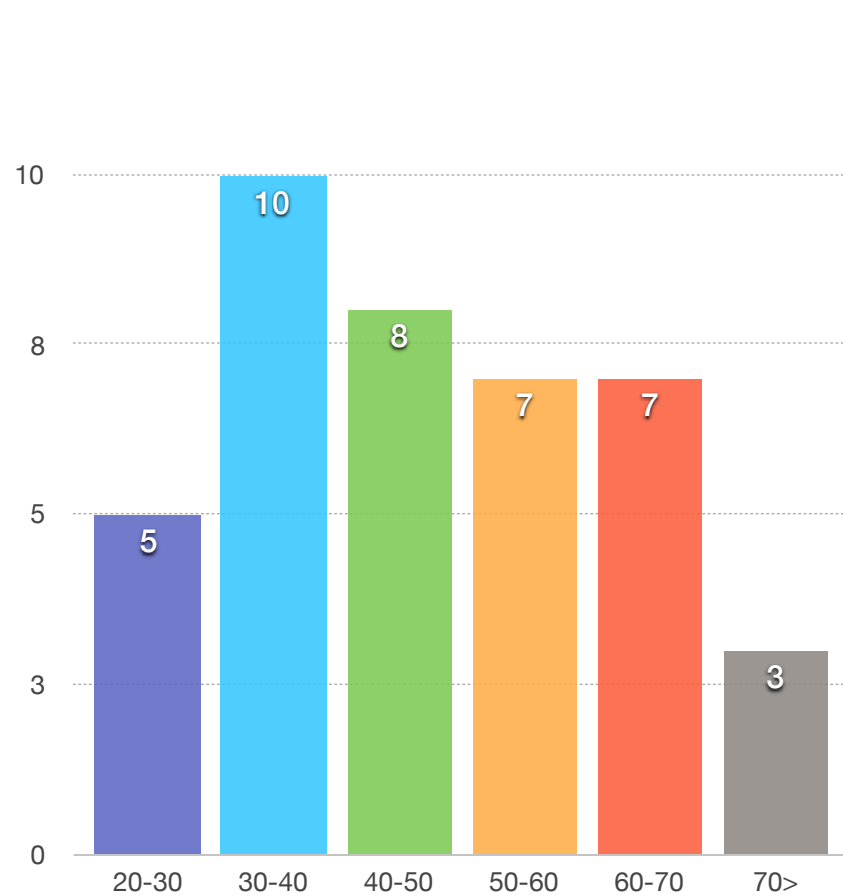


AGE VS Aneurysm location (McaA)



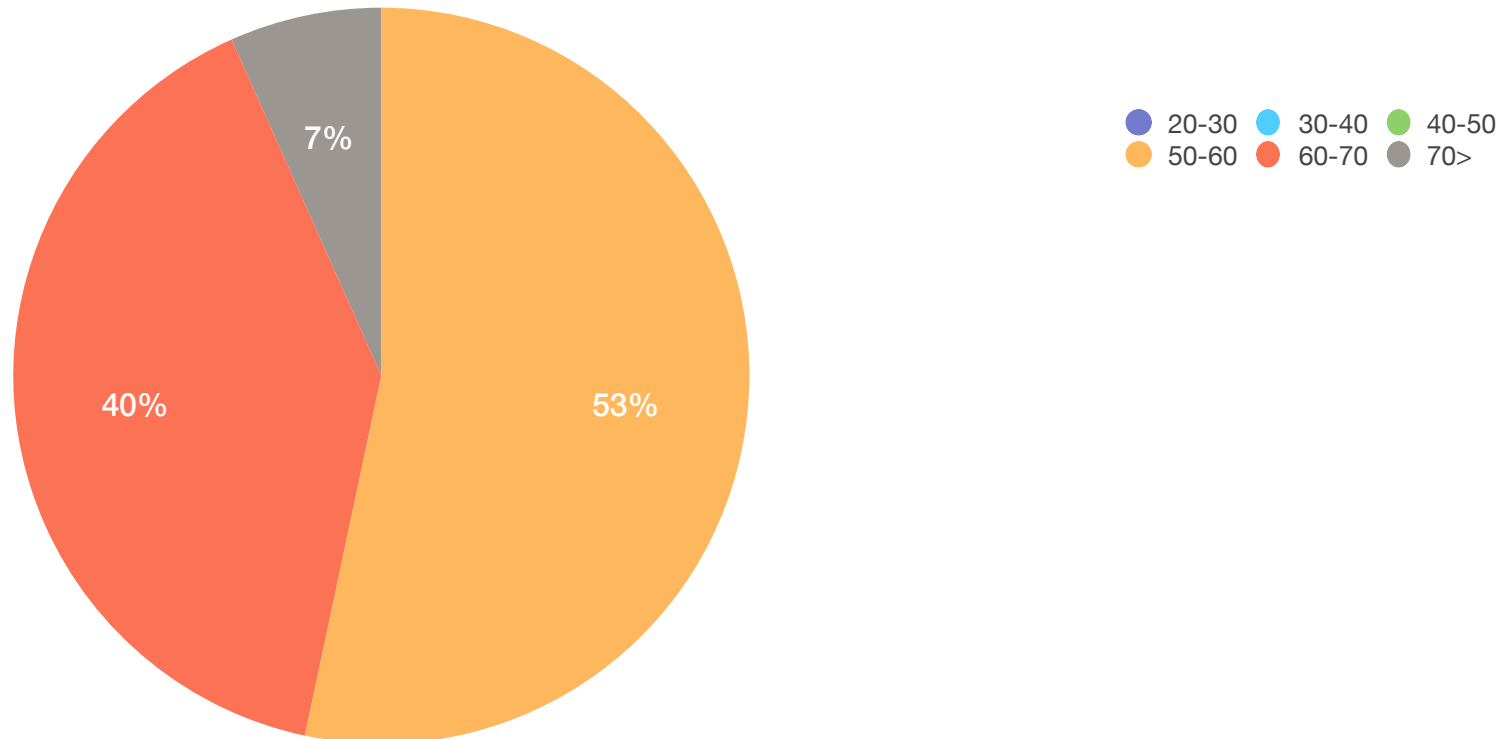
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AGE VS Aneurysm location (PcommA)



AGE VS Aneurysm location.

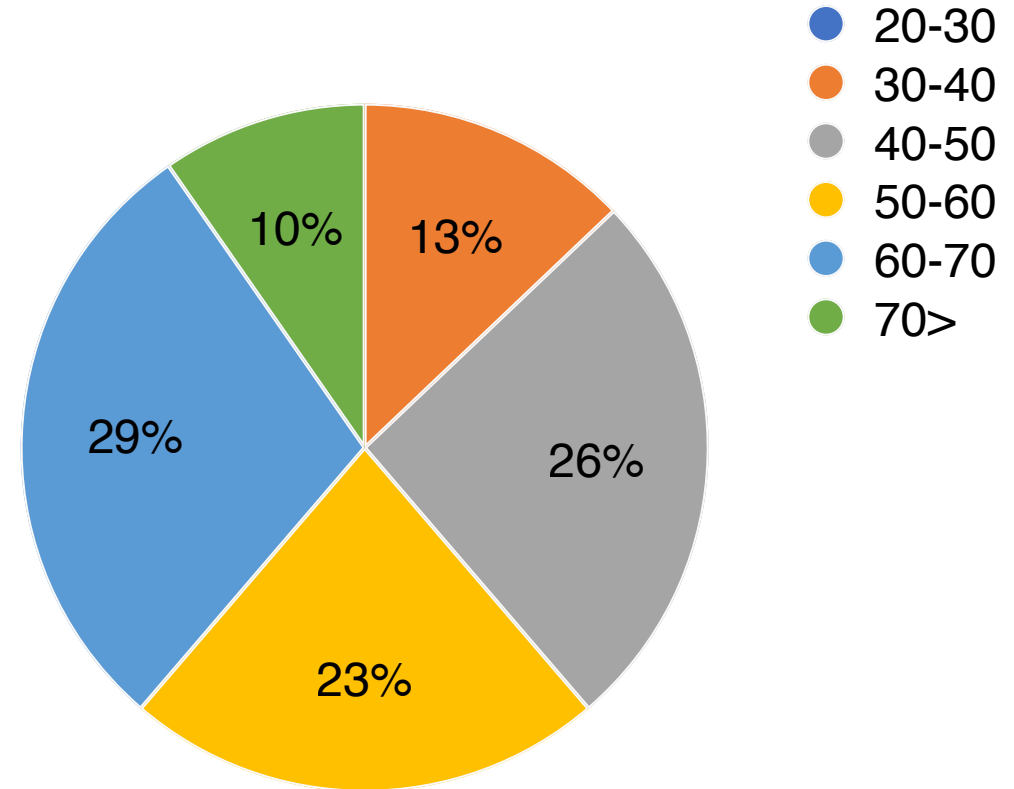
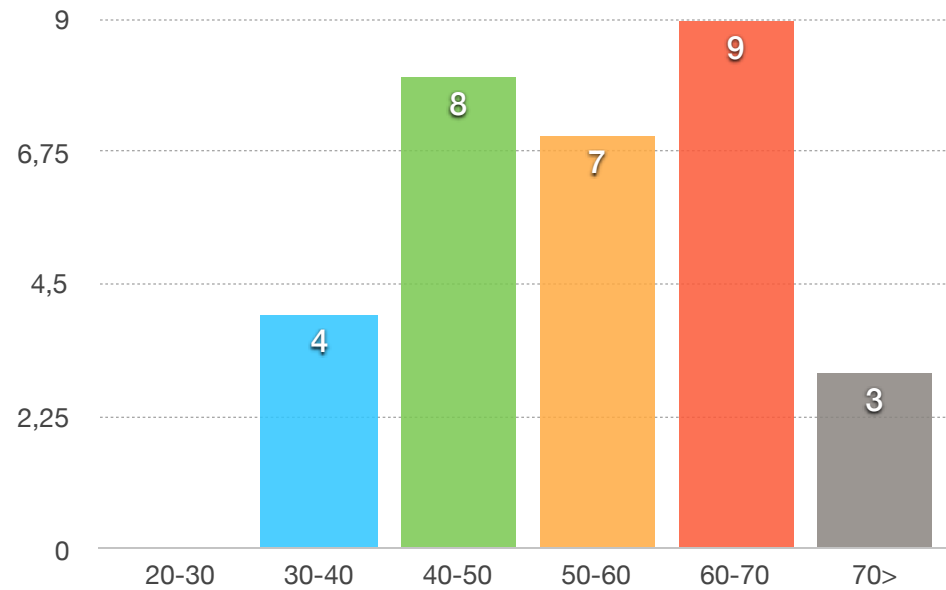
Posterior circulation ruptured aneurysms



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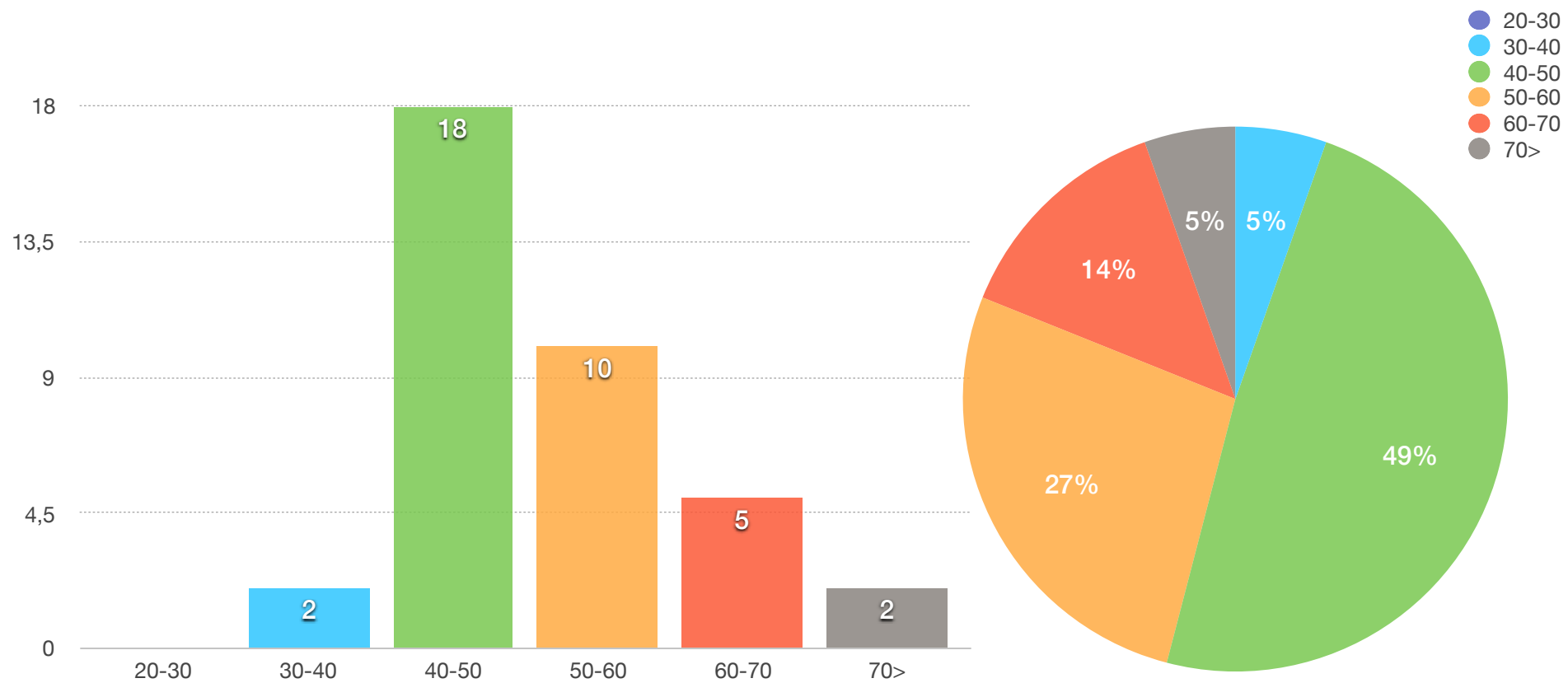
Race vs Aneurysm location rupture and age.

White population vs AcomA



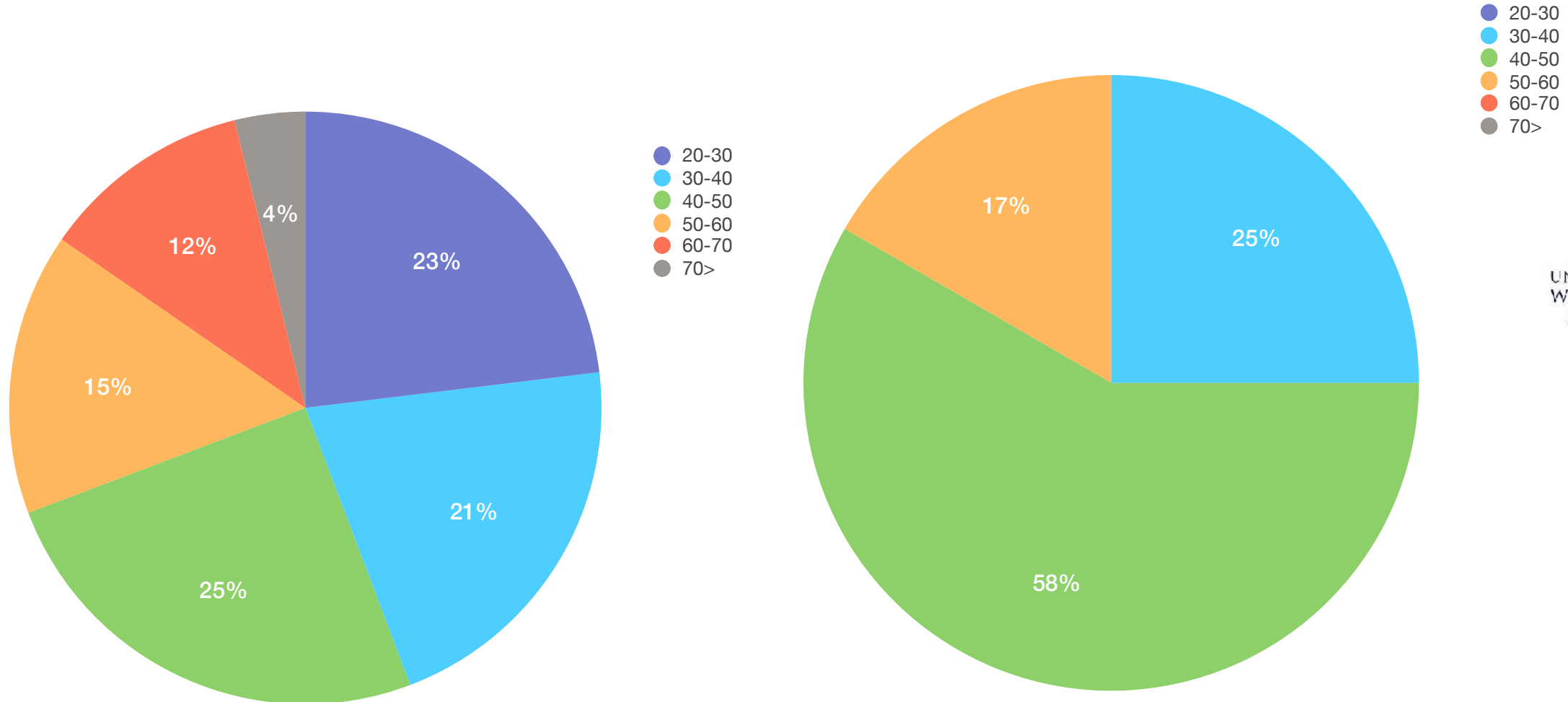
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Black African race vs AComA & Age



Race vs Aneurysm location rupture and age.

McaA in Black african population vs white racial population and Age.



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Conclusion

- Ruptured Intracranial aneurysms are relatively common. In our two hospital settings the incidence of ruptured aneurysm is high with patients presenting at a very early age. The size being predominantly below 7mm.
- The female to male ratio is higher, with an increased aneurysmal rupture in anterior circulation as compared to posterior circulation.
- There is a racial and age difference noted between the AcomA and McaA .
- Black African population has the higher proportion of McaA ruptured aneurysms from an early age as 26 as compared to the white population .
- Posterior circulation ruptured aneurysms are part of a small percentage and occur mostly above age 50 .

Thank you



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