

The epidemiological profile and incidence of gastric cancer patients in Grootte Schuur Hospital Cape Town, South Africa.

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INTRODUCTION

Background: Gastric cancer (GCA) is the 5th most common cancer and 3rd leading cause of cancer-related death. *Helicobacter pylori* (*H. pylori*) is a major risk factor. The pooled prevalence of *H. pylori* in Africa is 53%, despite this GCA appears to be low, the so-called African enigma.



GASTRIC CANCER IN SOUTH AFRICA

GLOBOCAN 2020 for South Africa showed that gastric cancer is the 16th commonest cancer with annual incidence of 3.5/100,000. In Botswana, gastric cancer ranked 16th with an incidence rate of 1.8/100,000 and in Zimbabwe 9.4/100,000

Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: a cancer journal for clinicians*. 2021;71(3):209-49.



Is the African
enigma true

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METHODOLOGY

We conducted a retrospective cohort study to determine the epidemiology and incidence of GCA among patients who are 18 years and above between March 2018-September 2022. Their demographic data, clinical risk factors, endoscopic and histologic pathology was collated from folders and electronic data for patients with biopsy proven GCA in Groote Schuur hospital (which serves a population of about 3.2million person).

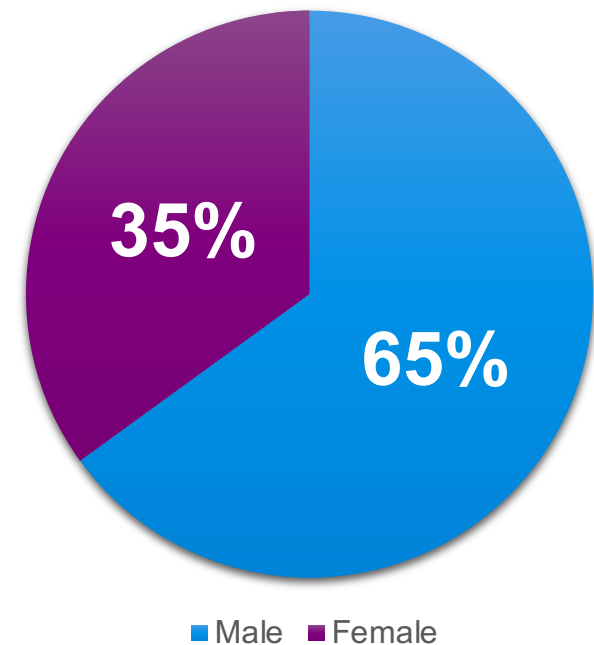


RESULTS

443 patients were included; median age= 63 (range 29-86), (61% \geq 60 years old) with 65% of the cohort been males

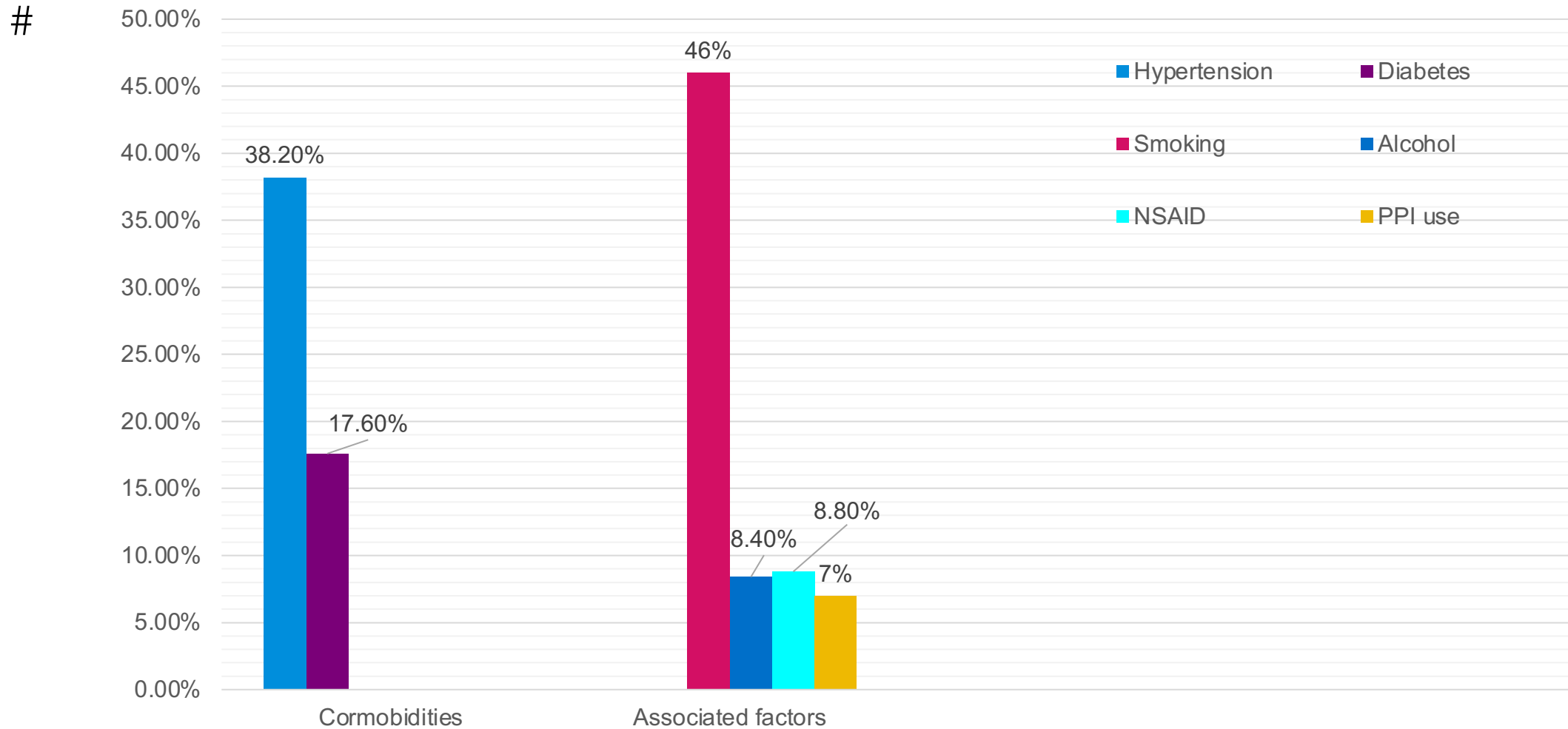
The annual Incidence of GCA in our cohort was 2.98 per 100 000

Sex distribution





COMORBIDITIES AND ASSOCIATED FACTORS





SUMMARY OF RESULTS

	Frequency	Percentage
Age \geq 60 @ diagnosis		
No	171	38.6
Yes	272	61.4
Sex distribution		
Female	152	34.39
Male	288	65.16
NR	2	0.45
Smoking history		
No	189	42.66
Yes	203	45.82
NR	51	11.51
Alcohol history		
No	320	72.23
Yes	37	8.35
NR	86	19.41



RESULTS CONT

	Frequency	Percentages
Epigastric Pain		
No	269	60.72
Yes	129	29.12
NR	45	10.16
Loss of Weight		
No	229	51.69
Yes	171	38.60
NR	43	9.71
Haemoglobin \leq 12		
No	118	32.15
Yes	249	67.85

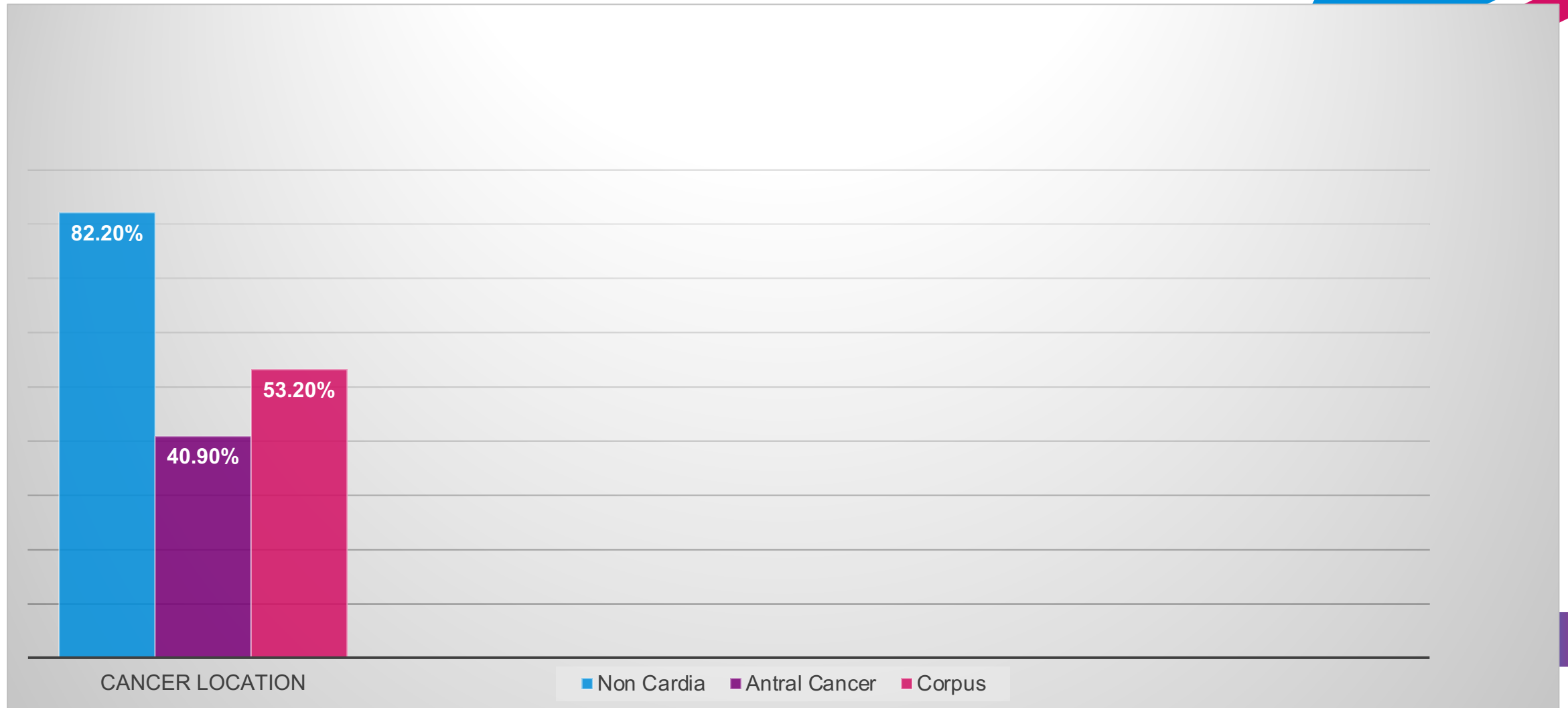


RESULTS CONT

Endoscopic findings		
Ulcer, gastritis/duodenitis		
No	26	5.87
Yes	279	62.98
NR	138	31.15
Non cardia cancer		
No	75	16.95
Yes	364	82.17
NR	4	0.90
Cancer involving the corpus		
No	203	45.82
Yes	236	53.27
NR	4	0.90
Antral Cancer		
No	258	58.24
Yes	181	40.86
NR	4	0.90

Histological findings		
Chronic Atrophic gastritis on biopsy		
No	51	11.51
Yes	69	15.58
NR	323	72.91
<i>H. pylori</i> on Biopsy		
No	242	54.63
Yes	51	11.51
NR	150	33.86

Distribution of cancer by locations





RESULTS CONT.

Histologically, *H. pylori* was reported in 11.5%, while chronic atrophic gastritis (CAG) in 15.6%

Adenocarcinoma was the predominant histological type accounting for 90% of the cancers

H. pylori was not associated with either antral or corpus cancer, or CAG, however **PPIs were associated with a reduced odd of antral cancer, OR=0.42, CI=0.18-0.97, p=0.04**

None of the other demographic or clinical factors were associated with the location of GCA.



CONCLUSION

GCA is higher in males and those ≥ 60 years

Loss of weight and anaemia are key red flags

Non-cardia gastric cancers are the commonest in this cohort

The low prevalence of *H. pylori* suggests previous eradication, although CAG was high, thus maintaining the increased risk of non-cardia CGA

The annual incidence of GCA in this study is (2.98/100,000), this figure is synonymous to what had been reported initially and tend to support the African Enigma

Novel findings:

PPI use was significantly protective against developing antral cancer. This highlights the need to treat *H. pylori*



AREAS OF FUTURE RESEARCH

- There is the need for a robust prospective study to understand the so call African Enigma. Including the possibilities of host protective molecules and cytokines, the strains of the *H. pylori* in the African community and associated mutations as well as germline mutations among patients with gastric cancers vs normal population.
- The Need for Gastric cancer registry in Africa



APPRECIATION

