The Characteristics of Prostate Cancer in Men of South Asian Origin in East Lancashire

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INTRODUCTION

Prostate Cancer (PCa) is the most common cancer in males in the UK. In 2018, **47,700 men were diagnosed** with PCa and around **11,600 men died** as a result of PCa in the UK[1].

There appears to a pronounced degree of **racial variation** within prostate cancer. Previous research on ethnic variation within PCa incidences has been limited in accuracy due to medical disparities and incomplete cancer registries, but available UK cancer statistics also show a higher risk of prostate cancer in men from an African/ Caribbean background compared to their Caucasian counterparts. Furthermore PCa appears **less common** in men of **South Asian** background (Indian/Pakistani/Bangladeshi/ Sri Lankan) living in the UK although the reason for this has not been studied in any detail.

East Lancashire has a sizeable South Asian population and, **since 2009**, **113 men** have been **diagnosed** with prostate cancer at **East Lancashire Hospital NHS Trust (ELHT)**. This unique group has not been studied and **little is known** about the **patterns** and **challenges** of prostate cancer **diagnosis** and **management** in South Asian men.

The **aim** of this project was to **scrutinise PCa characteristics** in this unique group of South Asian patients and where possible compare these parameters with Caucasian patients with PCa at

METHOD

We undertook a **retrospective patient record analysis** of the notes of **113 South Asian men** with PCa **diagnosed** or **managed** in **ELHT** between 2009—2019 (South Asian group).

Data was obtained from paper based notes, electronic records and multidisciplinary team (MDT) discussion data from the Somerset Cancer Register.

Key demographic and clinical parameters were recorded including; **age** at presentation, **biochemical markers**, nature of **symptoms**, role of **screening**, **communication issues**, **grade** and **stage** of disease, trends in **treatment choices**, the **presence** of **other cancer** and **non-cancer co-morbidities**.

The **Caucasian group** comprised **2872 patients** diagnosed with PCa at ELHT during the same 10 year period. Collated data for this group was obtained directly from the Somerset Cancer Register.

In the South Asian study group (n=113), the **median age** at the time of diagnosis was **68** years (40-88). The **median follow up period** (time of diagnosis to the study/death) was **54 months** (2-240).

The study was registered as a URIP project with UCLan and with the Audit department at ELHT. No ethics committee approval was necessary.

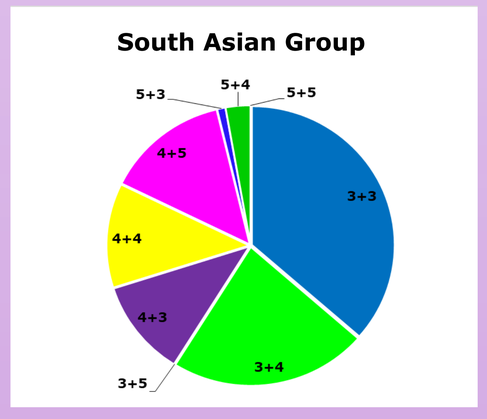
Age at Diagnosis (years)

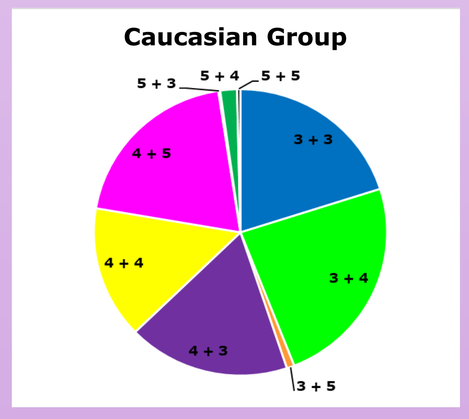
	Median	Mode	Average	SD	Highest	Lowest
South Asian Group	68	69	66.6	8.8	88	40
Caucasian Group	69	69	69.0	9.2	96	36

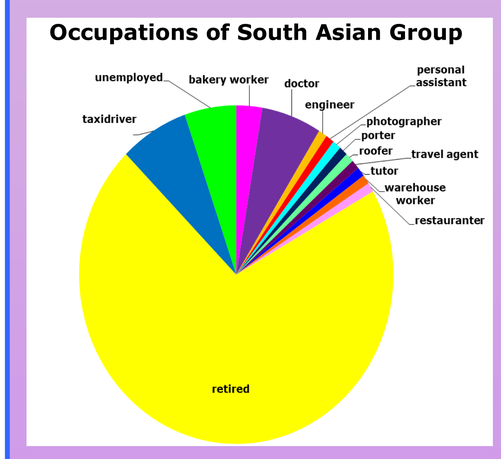
PSA at Diagnosis (ng/ml)

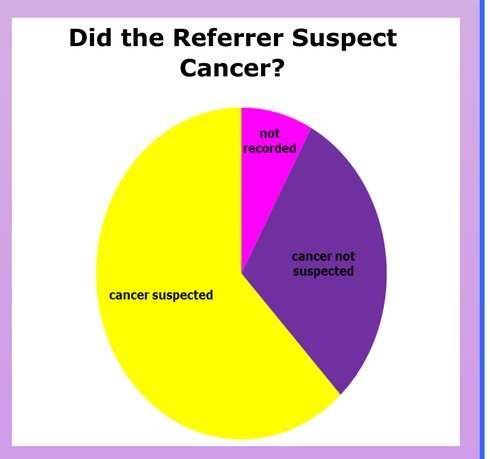
	Median	Mode	Average	SD	Highest	Lowest
South Asian Group	8.7	10.4	51.70	283.8	2930	0.10
Caucasian Group	11.8	7.2	123.08	700.2	16717	0.03

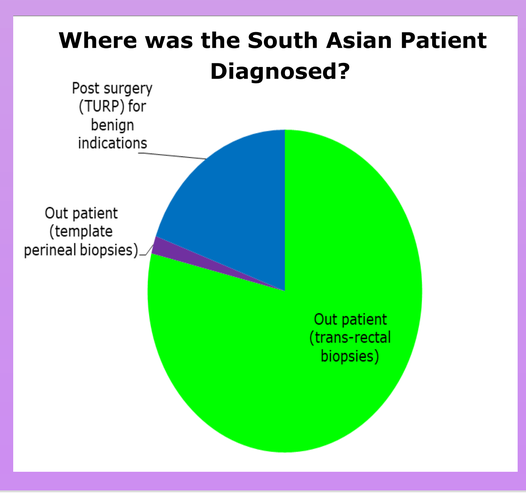
Gleason Scores

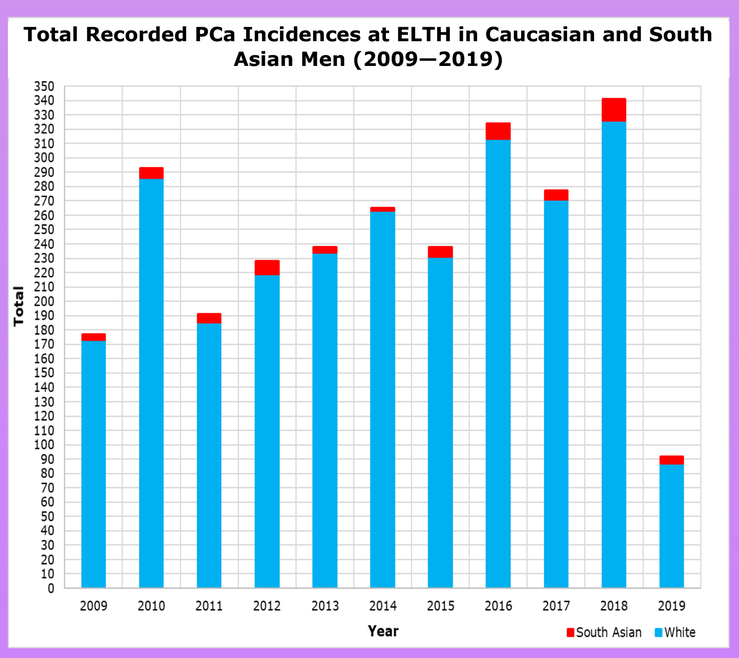


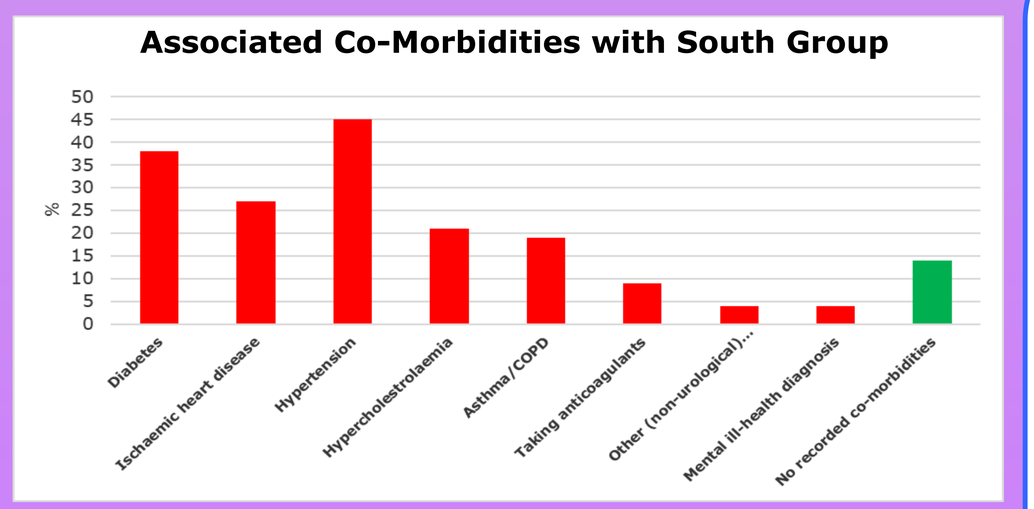


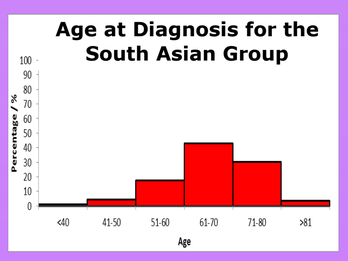


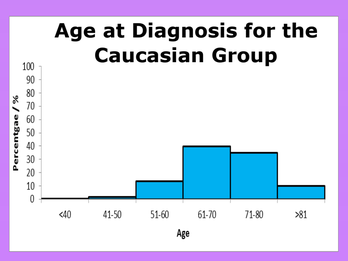


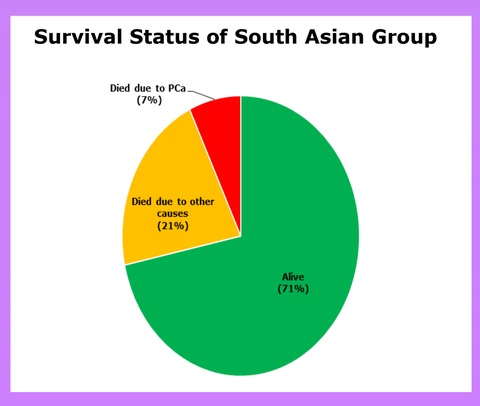


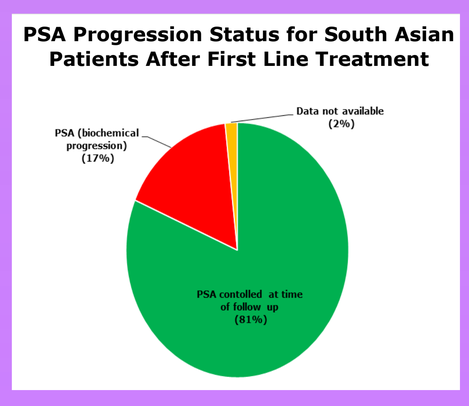








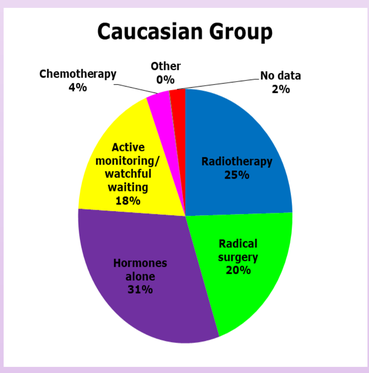


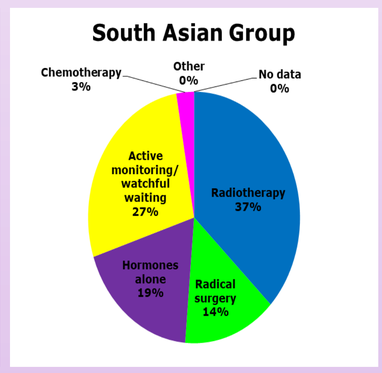


References:

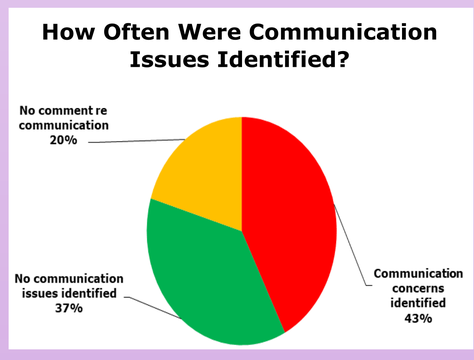
1. Cancer Research UK, https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/prostate-cancer#heading-One , Accessed: September 2019.

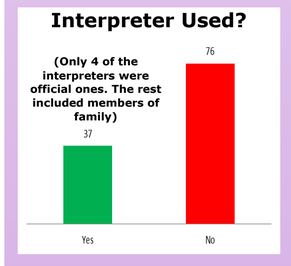
First Line Treatment Choices





Communication Issues Within South Asian Group





RESULTS

- The **rate of PCA diagnosis** has been steadily **increasing** in both groups.
- **Age** at diagnosis for both groups was very **similar**.
- **PSA levels** at presentation were **generally lower** for **South Asians** compared to Caucasian patients.
- **Histological Gleason scores** at diagnosis were generally **lower** for **South Asians** patients with a score of 3+3 category being the most predominant score.
- In almost a **third of patients**, the referring physician had **not suspected** a possible **diagnosis** of **PCa**.
- **Communication issues** were **frequently encountered** with South Asian patients with a large proportion being reliant on family members or interpreters to help with the consultation, potentially making detailed discussions inefficient.
- With regards to treatment choices, **South Asian patients** were more likely to **not require active interventional treatment**; **more likely** to undergo **radical radiotherapy** rather than surgery; and **less likely** to go on **hormonal manipulation** compared to their Caucasian counterparts.
- **81%** of the South Asian patients had demonstrated **no evidence of disease progression** and only **8** (7%) patients had **died** as a result of PCa.

DISCUSSION

This preliminary study provides interesting insights into the issues facing PCa diagnosis and management in South Asian men in East Lancashire. There is evidence of **differences** between this sub-group and Caucasian patients with PCa, though this study **cannot yet provide explanations** for these patterns.

The role of ethnicity in PCa development is complex and poorly understood. It is clear that more prospective, multi-modality research is needed to scope the entire PCa pathway for South Asian men from referral in primary care to diagnosis and management in secondary care, to focus on areas including:

- The **impact** of public and median **PCa campaigns** on the South Asian population in the UK.
- Potential **barriers** to accessing **heath care** providers for South Asian men.
- **Awareness** of prostate related issues in the South Asian community.
- **Techniques** to bridge the frequent **communication gap**, reducing reliance on family members and improving the quality of written information for these patients.
- **Factors** which **influence** patients decision making when choosing **treatment** options for PCa.
- **Molecular** and **genetic research** to identify differences in PCa characteristics between the two groups.