**TITLE: Relationship between Gleason’s grade and Testicular atrophy in patients with advanced prostate cancer**

**Authors**: Ambrose O. Anegbe¹, E. Oluwabunmi Olapade-Olaopa1,2,3, Olayiwola B. Shittu1,2,3, Linus I. Okeke1,2,3, Augustine O Takure1,2, S A Adebayo1,2

**Corresponding Author**: Ambrose O. Anegbe, Registrar, Department of Surgery, University College Hospital, Ibadan. Email: [ambroseanegbe@yahoo.com](mailto:ambroseanegbe@yahoo.com)

**Institutions**

1: University College Hospital, Ibadan, Nigeria

2: College of Medicine, University of Ibadan, Nigeria

3: Ibadan PIUTA Center, Department of Surgery, University College Hospital, Ibadan

**Introduction**

Testicular atrophy in patients with prostate cancer (CaP) has been associated with poor outcome. We have previously reported that 65% of our newly diagnosed CaP patients treated with bilateral orchidectomy had testicular atrophy. This is a pilot retrospective study evaluating the relationship between histologic grade and severity of testicular atrophy in these patients

**Methods**

Data was collated from records of patients who had therapeutic bilateral orchidectomy for prostate cancer between 2002 and 2012. The Histology was reported by a Consultant Pathologist. Testicular atrophy was graded as none (normal), mild, moderate or severe based on the degree of testicular tubular sclerosis found at histology. CaP specimens were graded using the Gleason scoring systems. Analysis was done using SPSS version 18.

**Results**

The histology of 164 prostate biopsies and 113 orchidectomy specimens from prostate cancer patients were analyzed. The age range was 36-91 years; mean age was 69.23 years (SD 9.446 years). The Gleason’s score ranged 4-10, mean 6.95 (SD 1.44). 64 patients (39%) had GS of 4-6, 87 (53%) had GS of 7-8 and 13 (8%) had GS 9-10. 21 (18.6%) had normal testis, 39 (34.5%) had mild, 16 (14.2%) had moderate and 37 (32.7%) had severe testicular atrophy. There was no statistically significant difference in GS among the four groups; F = 1.555; Sig. 0.221

**Conclusion**

Most patients in our environment with advanced prostate cancer have testicular atrophy, the degree of which is unrelated to histology grade of the tumour.