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Benign Prostatic Hyperplasia Modes of Presentation and Management in Rural Area-A Prospective Study

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Abstract: ***Need for the study: As majority of patients in rural area present with severe symptoms of BPH or complications there is a need to study the mode of presentation of BPH, compliance with medical management ,surgery and post operative follow up in rural area. Aim: Determine the various modes of BPH presentation in our region, management of various modes of presentation, post – operative complications. Materials & methods: A prospective study conducted at PESIMSR, Kuppam, A.P, India from nov 2013 to jun 2015. Results: 100 cases of benign enlargement of prostate are studied during the period from Nov 2013 to Jun 2015, analysed and discussed.Most of these patients seek admission to the hospital because of urinary retention either acute, chronic or acute on chronic retention surgical intervention done in the form of TURP in 37 cases.Medical treatment in 11 cases and combined modality of treatment in 52 cases.Conclusion: Medical treatment should be offered to those patients who are not willing for surgery,are unfit for surgery or having IPSS of mild to moderate.In the last 50 years TURP has become established as the procedure of choice in most patients with Benign Prostatic Hyperplasia.***

Keywords: BPH, TURP

1. Introduction

The term **"Prostate"** which means "Stand before" is apt since it stands at the exit of the bladder.Benign prostatic hyperplasia (BPH) is one of the most common diseases of the aging men.

The exact etiology of hyperplasia is not understood. Based on the clinical definition of BPH as given by Garrawayt et al 1991[2] which includes an enlargement prostate (more than 20gm) an elevated symptom score 11 or higher on a scale of (0-48).The prevalence of clinically defined BPH ranged from approximately 14% for men in their forties to 40% for men in their seventies. The development of BPH, as found by Coffey and Walsh[5] in 1990 is an androgen dependent process. Peter and Walsh[6] in 1987, demonstrated that androgen suppression causes reduction in prostatic volume thus decreasing static component of bladder outlet obstruction resulting in BPH.This is the rationale for the use of 5 alpha reductase inhibitors and various anti androgens.

Last 25 years has seen a phenomenal improvement in the treatment options of BPH,which includes both medical and surgical therapy. Until lately prostatectomy was only widely acceptable treatment of BPH.Surgery for BPH is either by way of open prostatectomy of different types, commonest being suprapubic transvesical prostatectomy or TURP.

2. Aims and Objectives

a) Determine the various modes of BPH presentation in our region.
b)Management of various modes of presentation ,post – operative complications and therapeutic response of patients to treatment.

3. Materials and Method

A clinical study of BPH, 100 cases admitted to PESIMSR Nov 2013 to Jun 2015 were studied with the help of data available from the hospital records.

For evaluation of BPH essential are-
1) History
2) Physical examination (DRE-digital rectal examination)
3) Urinalysis
4) Serum creatinine
5) PSA, if > 10 year life expectancy
6) International prostate symptom score (IPSS) or AUA symptom index.

The study was divided into 4 groups

1. **Clinical Study:** Conducted under the following headings.
a) Incidence of age.
b)Clinical examination included detailed general survey, associated diseases and systemic and genetiourinary system.
c)Rectal examination was done in all cases to know the grades of enlarged prostate and the lobes involved **.**
Grade I: The prostate is just palpable and upper limit is easily reached.
Grade II: The prostate is well palpable and the upper limit is reached with
difficulty.
Grade III: The upper limit of the prostate cannot be reached.
d)Treatment:Medical treatment with Tab.dynapress 0.4mgHS(Tamsulosin),surgical treatment with TURP
e)Follow up:Most of the cases were followed during the study period for a period of 6 months on monthly visits.

2. **Biochemical Study:** Biochemical estimations like blood urea, serum creatinine and prostate specific antigen were done.

3. **Pathological Study:** Histopathological study was done in the Department of Pathology, PESIMSR,Kuppam.The pieces of tissues were taken from the selected areas for histopathological examination and all attempts were made to recognize carcinoma in situ.

4. **Sonological Study:** This study was done in the Sonology Department PESIMSR ,Kuppam.The size of prostate, the lobes involved and post residual urine ,prostate volume were assessed sonologically.

5. **Cystoscopic study**: Was done in the Urology Department of PESIMSR,Kuppam.

Inclusion Criteria
All patients diagnosed to have BPH.

Exclusion Criteria
Patients with lower urinary tract symptoms and retention of urine due to causes other than benign prostatic hyperplasia.

4. Results

BPH is a disease which is common in elderly men in our country.Average age of presentation was 66.94 years. Youngest age of presentation in this study was 45 years and oldest was 85 years.Frequency of micturition (76%) and urgency(75%)were the lower urinary tract symptoms present in maximum number of cases.Clinical manifestations vary according to the size of the enlargement and duration.DM was the commonest co-morbidity, in 32% of cases.There were significant other medical and surgical co-morbidities.

Most of these patients seek admission to the hospital because of urinary retention either acute, chronic or acute on chronic retention (35%). IPSS score or AUASI score was moderate in (67 cases) with almost equal number of cases in mild (17 cases) and severe group (16 cases).

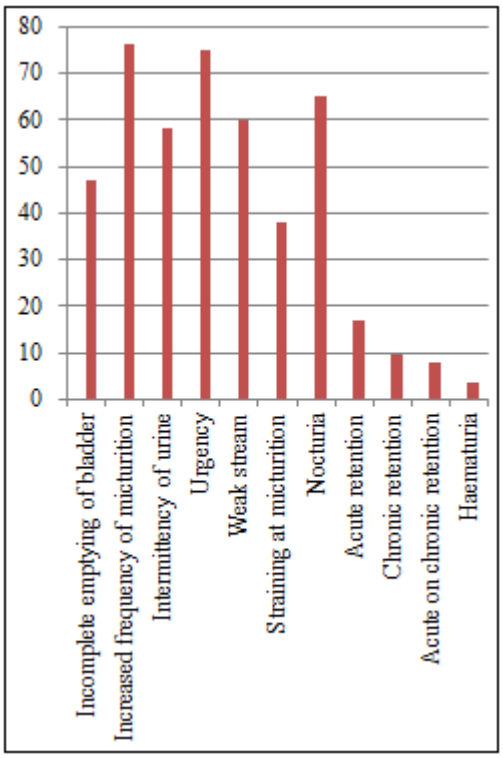

Figure 1: Incidence of clinical symptom

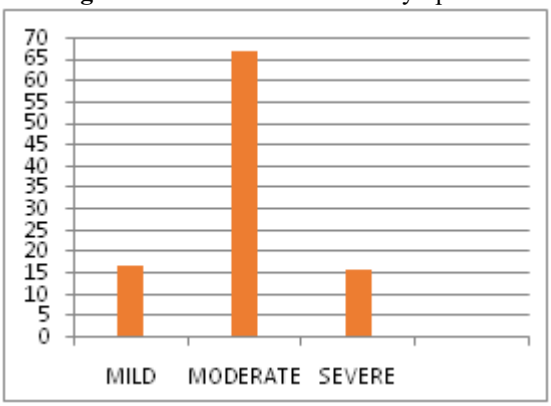

Figure 2: IPSS Scoring

Treatment of clinical BPH is targeted to improve symptoms of prostatism, relieve obstruction, improve bladder emptying, and prevent urinary tract infection and renal function deterioration.The presence of residual urine is an important indication for surgical intervention because it predisposes to infection and can cause damage to urinary tract.The surgical intervention done in the form of TURP in 37 cases.Medical treatment in 11 cases and combined modality of treatment in 52 cases.

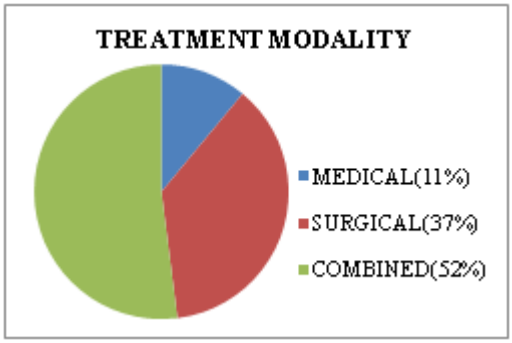

Figure 3: Different treatment modality

All the specimens of 89 cases were sent for HPE and found that adenomatous hyperplasia was the most common pathological variety. A maximum number of cases (9%) had hematuria as a post-operative complication.

5. Discussion

Treatment option of BPH has drastically changed over the last decade owing to the availability of several treatment options and an altered perception of the natural history and pathophysiology of the disease process.Advances in the management of BPH during the past four decades have led to a major reduction in mortality from this chronic progressive condition. Advances have been made not only in surgical intervention but also in the development of effective medical therapies. As a result, a much stronger focus now exists on improving the quality of life of patients with BPH.Prostatectomy and minimally invasive therapies resect or ablate the obstructing tissue respectively. Medical therapies are targeted to relieve obstruction by relaxing smooth muscle (alpha-blockers) or promoting regression of the disease process (androgen ablation).The ultimate role of the emerging alternative strategies of BPH management namely hormonal, pharmacologic, thermal and device remain to be fully defined. In the meanwhile TURP remains the standard against which all new therapies must be measured.

6. Conclusion

Medical treatment should be offered to those patients who are not willing for surgery, are unfit for surgery or having IPSS of mild to moderate.In spite of the associated post-operative morbidity in few elderly patients after surgery, of all treatment options, prostate surgery offers the best chance of symptoms improvement with TURP being a gold standard procedure.Surgical excision has been the cornerstone in the management of BPH for nearly a century.In the last 50 years

TURP has become established as the procedure of choice in most patients with Benign Prostatic Hyperplasia.As regards cost of treatment, patients who opt for medical therapy should have symptoms bothersome enough to make a lifetime commitment to medical therapy and it expenditure on drugs, while TURP is by and large one time procedure.

7. Conflict of Interest

None

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