DETECTION AND MANAGEMENT OF EARLY CANCER URINARY BLADDER

Essay

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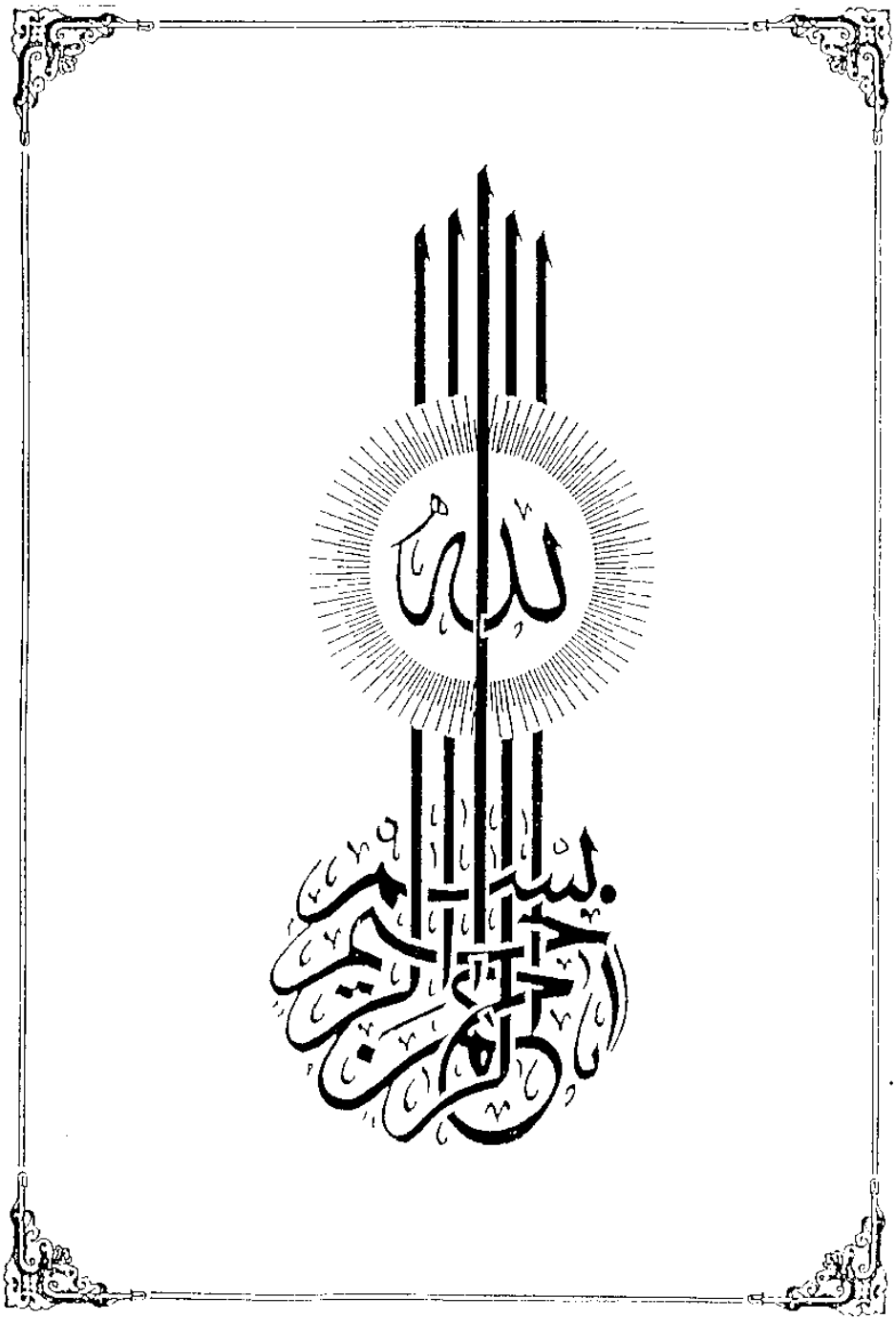

C O N T E N T S

INTRODUCTION.

I N T R O D U C T I O N

Carcinoma of the urinary bladder is a real problem of considerable magnitude. The exact incidence in Egypt is unknown; However, it is high enough to warrant ceasless efforts aiming at prevention and early detection of the disease.

It should be beared in mind that carcinoma of the urinary bladder in Egypt constitute not only, a medical but also a human and a socioeconomic problem, since it affects younger age group of population subjected to Bilharzial infestation. Over 90 % of bladder cancer in Egypt show evidence of bilharziasis in the urinary bladder. (Aboul-Nasr, et.al., 1962).

The principle histopathologic type of bladder cancers in Egypt is squamous cell carcinoma in about two thirds of cases (El-Bolkainy et.al., 1972),

However, trasitional cell carcinoma in Egypt is not uncommon and constitute about 25.4 % of cases; while adenocarcinoma was encountered in less that 8 % of cases (El-Bolkainy, et.al., 1972).

Unfortunately, the early symptoms of bladder cancer are non specific and simulate very much the irritative bladder symptoms of bilharzial cystitis in the form of frequency, urgency, burning micturition, haematuria ... etc.

The bilharzial patient was accustumed to such irritative bladder symptoms, which constitute a normal daily-life and don't make any problem to him to seek medical adivece.

Consequently more than 80 % of patients in Egypt presented for the first time with advanced inoperable tumours stages "T_3 and T_4" (El-Said, et. al., 1979), out of these patient about 2 5 % were considered clinically inoperable. (Ghoneim & Awaad, 1980).

Although, eradication of bilharziasis in Egypt and prevention of the use of proven potent bladder carcinogens in industry in the western world, seem to be the logical approach to the problem, Yet, at present, early detection of the disease is the practical feasible measure.

In addition to the standar d methods of diagnosis of bladder cancer, many recent modalities have been embloyed with great success and accurate results in the early stages of the disease that enable propmt treatment and complete cure.

Among , these modalities, D.N.A flow cytometry, flexible cystoscopy, chromocystoscopy, C.T. scan, Trans-rectal ultrasonography, Magnetic resonans imaging and immunologic diagnosis were all considered recent but highly effective modalities in the detection of very early stages of the disease.

On the other hand, improvements in the availble treatment modalities and introduction of other recent ones seems to be our tools to improve the results of the current treatment modalities and minimize the mortality

and morbidity rates with standar d radical cystectomy, definitive radiotherapy and systemic chemotherapy.

Fortunately, new methods of treatment have been described in the last century depending on the fact that malignant bladder tumorrs carry on their surfaces specific antigens. That when stimulated by antibodies might lead to destruction of the growth. Thus the use of "B.C.G." and other immunostimulants have been used with success in early multifocal neoplasm that was previosly necessitates radical cystectomy with urinary diversion.

Similarly the use of photoradiation therapy select the malignant cells, that concentrate specific dye, without any effect on the normal adjacent cells.

Finally, with tremendous improvement and advances in the diagnostic and therapeutic modalities, carcinoma of the urinary bladder can be considered undoubtedly a preventable and curable disease in its early stages.

PART. I :

ANATOMY.

ANATOMY OF THE URINARY BLADDER "VESICA URINARIA"

The urinary bladder is a sac which acts as a reservoir for urine; its size and position vary with the amount of fluid that it contains and also with the state of distension of the neighbouring viscera. (Davis & Davis, 1964).

Position of the Bladder:

This muscular organ, when empty, lies in the antro-inferior part of the pelvis, while, in children, the bladder is an abdominal organ even when empty, it is not entirely a pelvic organ till after puberty. (Romanes, 1973).

Shape of the Bladder:

The empty bladder has the shape of a three-sided pyramid with its apex directed anteriorly, but becomes spherical when distended with urine (Romanes, 1973).

The shape and size of the bladder are the same in both sexes, (Last, 1981).

Anatomical Relationships: Fig. (1.)

The apex is directly continous with the median umbilical ligmament immediately posterior to the upper margin of the pubic symphesis.

The triangular base "fundus" of the bladder faces postroinferiorly and is applied to the genital septum, which separates it from the rectovesical (or Rectouterine) pouch and rectum. The base and the superior surface are continouns at the posterior border. Where the ureters join the bladder at the lateral ends of this border.

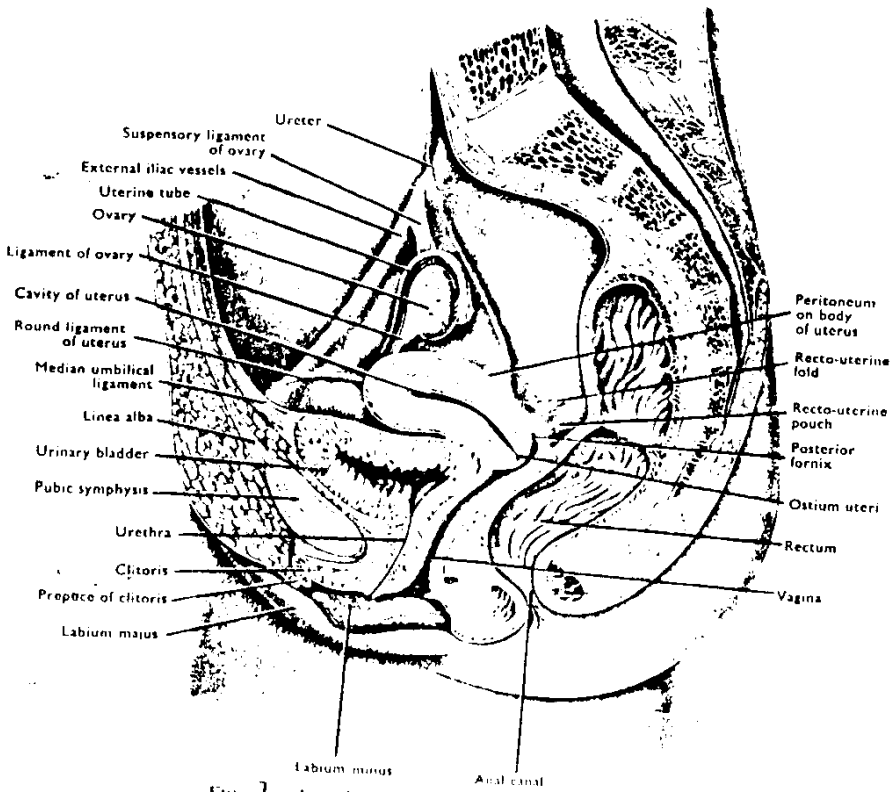

FIG. 1 A median section through the female pelvis.

The sides of the pyramid consist of two inferolateral surfaces and one superior surface. The inferolateral surfaceslie on the retropubic pad of fat that fill the so colled retropubic space or "Cave of Retzius". (Romanes, 1973". Fig. (2).

RELATIONS:

In the male:

1. The base separated from the rectum by the recto-vesical pouch, the seminal vesicles and terminal parts of vasa deferentia from above downwards.
2. The peritoneum on the superior surface continous posteriorly with recto-vesical poush and on both sides it forms the paravesical fossae, while anteriorly it covers the posterior surface of the anterior abdominal wall.
3. The inferolateral surfaces are separated from the pubis, pubo-prostatic ligaments, origin of levator ani and obturator internus by the retro-pubic pad of fat.
4. The neck of the bladder related to and fused with the upper surface of the prostate. Fig. (3).

In the females: The same relations as in males except the base which is related to the anterior vaginal wall, the peritoneum cavers the superior surface reflected posteriorly to form the utero-vesical pouch while its posterior part and the posterior surface are devoid of peritoneum Also the neck is related to the pelvic fascia and continous

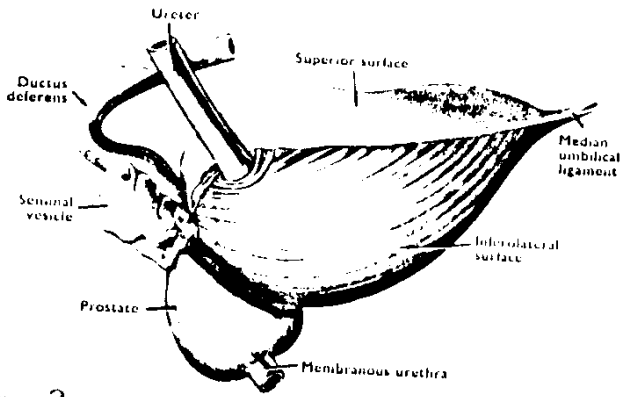

FIG. 2 A lateral view of the urinary bladder, prostate and seminal vesicle. The bladder is nearly empty.

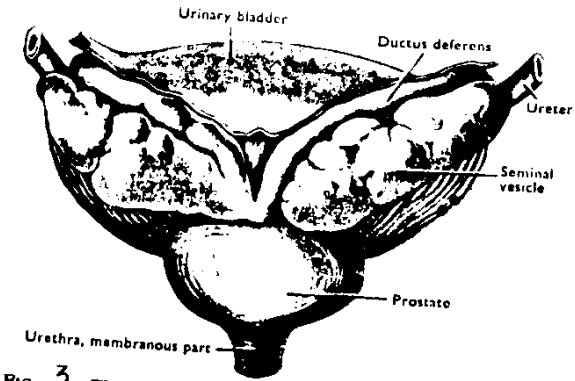

FIG. 3 The posterior surfaces of the urinary bladder, prostate, and seminal vesicles.