

Current Status of Prostate Cancer in Asia

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Introduction.

Prostate cancer become one of the most common malignancy in men worldwide including Asia. As a continent Asia consist of many different countries with their own culture, diet, health status, environment, and economical situation.

Background.

In the last ten years more publications on prostate cancer appear in the medical journals or conference reports. From these studies we understand that the incidence of prostate cancer in Asia was increased.

Purpose.

To know the recent incidence, diagnostic procedure, and treatment modality of prostate cancer in Asia.

Methods.

Pubmed search as well as from other related source in Asian publications concerning prostate cancer were collected and analyzed.

Results.

Incidence of prostate cancer was increased between 5-120% in the last ten years with Singapore (Chinese), Japan (Miyagi), China (Shanghai), and the Philippines (Rizal) as the countries with the highest. According to Globocan 2002 report, the incidence rate of prostate cancer in Asia varies from 0.3 in Bangladesh and 18.6 in the Philippines which was lower compare to Western world.

Some of the risk factors which are common were increasing life expectancy, westernized diet habit, and environmental exposure. With the projected increase of 300% more elderly population in Asia, one can expect that the incidence of prostate cancer in this region will be more prominent. In contrast, there also some prove that certain diet such as soy and green tea could be linked to the relatively low incidence of prostate cancer in many Asian countries.

Beside digital rectal examination (DRE), prostate specific antigen (PSA) measurement become a standard procedure in many urological clinic, among other to determine the need of prostate biopsy. The cut-off level of PSA as a biopsy indication varies from country to country; although many centers used 4 ng/ml or higher as indication for biopsy, some countries still used 10 ng/ml or higher as cut-off level.

Mean age at diagnosis varies between 66-72 years without clear difference between developed or developing Asian

countries. However, mean PSA at diagnosis was lower in developed countries such as Japan and S. Korea with mean PSA of 15-51 ng/ml, while in developing countries it varies from 75-373 ng/ml.

Diagnostic of prostate cancer was mainly done with TRUS guided biopsy; this procedure was more common in developed countries ranging from 75-97% compare to 66-68% in other countries. It means that most of the patients underwent TUR of the prostate instead of prostate biopsy. However, the number of biopsies taken were almost similar with average 8 to 12 cores as reported in recent studies.

It was typical that advanced stage was more common in developing countries (61-73%) compared to 10-47% in Singapore, Taiwan, S. Korea, and Japan. These figures reflect the shortage of manpower and/or medical instrument including TRUS probe to perform prostate biopsy as an effort for early diagnosis.

Recently, radical prostatectomy (RP) is a common procedure for organ confined prostate cancer in many urological center throughout Asia. Even the robot-assisted Laparoscopic RP became standard procedure in some centers in many Asian countries. In other centers, it will be done as pure LRP or open operation. In general RP will be indicated in patient with life expectancy > 10 years; ofcourse it depend from country to country, for example age limit for RP was set at 75 years by 66-69% of urologists in a Japanese survey.

There are not so many Asian publication concerning the use of external beam radiotherapy for definitive treatment of prostate cancer although a more sophisticated facility such as Intensity-modulated radiation therapy (IMRT) machines were available in Thailand, Indonesia, Japan, India, Singapore, Malaysia, S. Korea, Hong Kong and many other Asian countries.

Hormonal treatment is the mainstay for advanced stage patients. Bilateral orchiectomy is more popular method, even DES tablet still being used in some country due to economical reason. However, utilization of LHRH injection become more often especially by including this drug in government besides private insurance coverage.

Besides for advanced disease, LHRH injection was also routinely given as neo-adjuvant androgen deprivation treatment before radiotherapy in T3 cases or as adjuvant treatment in patients with node positive after RP or high grade tumor following EBRT as suggested by many guideline. However, according to several studies, hormonal therapy are also given as primary treatment in young age patients with organ confined disease. It is not clear whether this treatment was suggested by the urologist or patient driven.

Conclusions.

The incidence of prostate cancer in Asia is increasing and with more elderly population in the future, it is clear that this disease will become more prominent. Currently, the diagnostic procedure was not yet uniform, in some country one third of prostate cancer was diagnosed not by prostate biopsy. There was also a huge variation in tumor stage. These problems could be overcome by having more manpower, medical facilities, and patient education campaign. Despite these situation, many Asian urologists already embarked to laparoscopic technique of RP, even robotic machines already available in several countries.