The Friends of Israel Urological Symposium was held in Tel Aviv, Israel, from July 3 to 5, 2012. The meeting included a diverse international faculty discussing the latest advances in urologic care. This review highlights some of the exciting presentations on localized prostate cancer.

Prostate Cancer
One of the key topics was the hierarchy of levels of prevention for prostate cancer. Beginning with primary prevention, despite encouraging findings from epidemiologic studies, selenium and vitamin E were not found to be useful for prostate cancer prevention. Although other dietary and lifestyle factors may still play a role in prostate cancer prevention, Dr. Mark Litwin (David Geffen School of Medicine at UCLA, Los Angeles, CA) discussed that definitive evidence of a benefit is currently lacking. 5α-Reductase inhibitors (5ARIs) may reduce the risk of biopsy-detectable, low-grade prostate cancer. However, the US Food and Drug Administration did not approve an indication for prostate cancer prevention due to concerns about an increased risk of high-grade disease with long-term use. Other side effects of 5ARIs include erectile dysfunction and gynecomastia. Finally, Dr. Neil Fleshner and colleagues (Princess Margaret Hospital, Toronto, Ontario, Canada) presented new data from the Ontario Diabetes Database and Cancer Registry, showing that diabetic patients on metformin had a lower risk of prostate cancer-specific mortality. Additional study is needed to prospectively evaluate metformin and other agents for prostate cancer prevention.

Reviewed by Stacy Loeb, MD, MSc, Department of Urology, NYU Langone Medical Center, and Veterans Affairs New York Harbor Healthcare System, New York, NY; James F. Borin, MD, Division of Urology, University of Maryland School of Medicine, Baltimore, MD
Secondary prevention was also discussed including the controversies surrounding prostate-specific antigen (PSA) screening. Although PSA screening remains the mainstay for early detection, a multi-variable approach was advocated incorporating other risk factors (age, ethnicity, prior biopsy history). In the past year, several new markers have been approved for use in prostate cancer detection. PCA3, a urinary marker, was approved for men with a prior negative biopsy to help predict repeat biopsy results. proPSA and the Prostate Health Index were also recently approved in the United States, and have been shown to increase the specificity of PSA-based screening for overall and aggressive prostate cancer. There have also been considerable advances in our understanding of prostate cancer genetics. Single nucleotide polymorphisms affect PSA levels, and the use of genetically adjusted PSA results is currently under investigation.

For men already diagnosed with prostate cancer, one of the key challenges is distinguishing which tumors are life threatening and which men would benefit from aggressive therapy. Current staging methods have significant limitations in this regard. Prognostication has been further complicated by changes in pathologic classification over time. Although a 2005 consensus conference attempted to standardize needle biopsy reporting, additional updates have occurred since that time, including labeling more cribriform tumors as Gleason pattern 4.1 As such, Gleason score 6 and 7 tumors may have different implications than in the past. Overall, there remains considerable heterogeneity of clinical behavior even within each Gleason score category.

Ongoing advances may help improve risk stratification and treatment selection in the future. Although the Epstein criteria are frequently used in contemporary practice, Dr. Robert Reiter and colleagues (UCLA Medical Center, Los Angeles, CA) showed that the addition of magnetic resonance imaging (MRI) data to these criteria could further enhance the prediction of clinically significant disease. Genetic alterations in tissue from prostate biopsy were also used to help predict prognosis and determine the need for aggressive treatment.

For men choosing conservative management, Dr. Laurence Klotz (Sunnybrook Research Institute, Toronto, Ontario, Canada) discussed the range of approaches from traditional watchful waiting to active surveillance. Life expectancy, patient preferences, and cancer features can be used to help determine the optimal follow-up protocol for individual patients.3 Life expectancy, patient preferences, and cancer features can be used to help determine the optimal follow-up protocol for individual patients. Recent evidence was discussed showing that MRI may be useful to confirm the absence of high-grade disease during conservative management.3 The treatment of localized disease has also continued to improve. Numerous studies have demonstrated the beneficial effects of dose escalation for local tumor control with radiation therapy. Although hormonal therapy has been shown to improve survival when combined with radiation therapy for high-risk disease, there was debate regarding the optimal protocol for intermediate-risk disease. Dr. Michael Zelefsky (Memorial Sloan-Kettering Cancer Center, New York, NY) presented new data from intermediate-risk patients treated at Memorial Sloan-Kettering Cancer Center, showing that even a short course of hormonal therapy reduced metastatic disease for patients treated with external beam radiotherapy (EBRT) alone. However, additional investigation is ongoing to determine whether combining EBRT with brachytherapy would mitigate these effects.

Finally, there was debate over the optimal management of positive surgical margins. The consensus was that not all positive margins are the same. From the pathology standpoint, it is important to document both the location and linear extent of margins because these may have implications for prognosis. More recent studies have suggested that Gleason score at the margin may also provide useful prognostic information. Although there is currently a paucity of evidence about MRI in patients with a rising PSA after radical prostatectomy, Dr. Arnauld Villers (Lille University Hospital, Lille, France) showed new data on a possible role in the identification of local recurrence.

**References**