

### Editorial Comment

While the first paper deals with selective management of gunshot wounds to the back and abdomen, this paper centers on gunshot wounds to the pelvis. It is a much smaller study of only 37 patients, and as in the 2001 study cited previously, patients only had laparotomy if they had peritoneal signs, hemodynamic instability, gross hematuria or rectal bleeding. 51% got immediate operation and 49% were observed. 3/18 (17%) of those observed required exploration for peritoneal signs, but all 3 were nontherapeutic! So, once again this group turns what we know about trauma on its head. If you pick the correct physical exam signs to trigger surgery, you can avoid unnecessary laparotomy in about half of patients with gunshot to the pelvis. I must repeat, I think this is amazing. I think data such as this can give us the strength to “sin boldly” in our own world of genitourinary trauma, and determine which of our signs and symptoms predict who will not need operating.

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### PATHOLOGY

#### **Risk of prostate cancer on re-biopsy following a diagnosis of high-grade prostatic intraepithelial neoplasia (HGPIN) is related to the number of cores sampled**

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**Background:** We aimed to determine whether the extent of needle biopsy sampling both on the initial biopsy that showed HGPIN and on re-biopsy would influence the detection rate of cancer.

**Design:** 4,237 patients with an initial diagnosis of only HGPIN on needle biopsy were identified; patients who in addition to HGPIN had a focus of atypical glands, suspicious for cancer were excluded. Of these, 937 patients had at least one follow up biopsy and were the subject of this study. The mean age was 67.5 (range from 39 to 87 years). The mean interval from diagnosis of HGPIN to rebiopsy was 4.8 months. In the initial biopsy resulting in a diagnosis of HGPIN, 371 men had > 8 cores (median 10; range 8-26) and 399 men had 6 core sampling.

**Results:** Not taking into account the number of cores on rebiopsy, in the 6 core initial sampling group, the risk of cancer on rebiopsy was 22.1% versus 15.1% in the > 8 core group (p value = 0.013). The table shows the combined influence of numbers of cores in the initial and rebiopsy sampling.

Group	N Cores 1st Biopsy	N Cores Rebiopsy	Risk of Cancer
1	6	6	29/173 (16.8%)
2	6	≥ 8	26/83 (32.4%)
2	≥ 8	≥ 8	44/285 (15.4%)

The differences between groups 1 and 3 as compared to group 2 were statistically significant (p = 0.001 and p < 0.0001, respectively).

**Conclusions:** Many cases of HGPIN on biopsy are associated with adjacent unsampled cancer. With relatively poor sampling (6 cores) on the initial biopsy, associated cancers are missed resulting in only HGPIN

on biopsy, and with relatively poor sampling on rebiopsy there is also a relatively low risk of finding cancer on rebiopsy. With poor sampling on the initial biopsy and better sampling on rebiopsy, some of these missed cancers are detected on rebiopsy yielding a higher detection of cancer. Sampling more extensively on the initial biopsy detects many associated cancers, such that when only HGPIN is found they often represent isolated HGPIN; rebiopsy even with good sampling does not detect many additional cancers. Our study demonstrates that the risk of cancer following a diagnosis of HGPIN (15.1%) is not that predictive of cancer on rebiopsy if good sampling (> 8 cores) is initially performed. Routine rebiopsy of men with HGPIN may not be necessary in the modern era of more extensive needle biopsy sampling.

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The detection of adenocarcinoma on a re-biopsy varies from 23% to 79% (1). The study from the Johns Hopkins University shows a declining trend for this frequency. The authors clearly give the most important cause: sampling more extensively on the initial biopsy (extended biopsy) detects many associated cancers, such that when only high-grade intraprostatic neoplasia (HGPIN) is found they often represent isolated HGPIN; rebiopsy even with good sampling does not detect many additional cancers.

It is worth mentioning that HGPIN is different that ASAP; with the latter a re-biopsy is always indicated. ASAP was coined by Iczkowski, MacLennan & Bostwick (2) to refer to a condition when the pathologist is not sure with the diagnosis of adenocarcinoma. Unfortunately, many urologists equate the term ASAP with HGPIN and since the diagnosis of HGPIN has diminished relevance as a marker lesion to detect adenocarcinoma (as recent data seem to indicate), if the term ASAP is used by pathologists and misunderstood by urologists, a clinically significant suspicion for cancer may trigger a less than adequate clinical follow-up.

Considering these facts, a 2004 WHO-sponsored International Consultation Consensus held in Stockholm on prognostic and predictive factors and reporting of prostate carcinoma in prostate needle biopsy specimens, recommended to use the terms “suspicious or highly suspicious for adenocarcinoma” instead of ASAP.

### References

1. Epstein JI, Potter SR: The pathological interpretation and significance of prostate needle biopsy findings: Implications and current controversies. *J Urol.* 2001; 166: 402-10.
2. Iczkowski KA, MacLennan GT, Bostwick DG: Atypical small acinar proliferation suspicious for malignancy in prostate needle biopsies: clinical significance in 33 cases. *Am J Surg Pathol.* 1997; 21: 1489-95.

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### Current practice of Gleason grading among genitourinary pathologists

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There is consensus that the Gleason system should be used for grading of prostate cancer. However, a number of controversial issues remain as regards how this grading is applied. A questionnaire was sent to 91 genitourinary pathologists in countries around the world with the purpose to survey current practice of Gleason grading. The response rate was 74%, including 43 North American pathologists and 24 from other continents.

Of all participants, only 13% and 36%, respectively, ever diagnosed a Gleason score (GS) of 2 to 3 or 4 on needle biopsies (NBX), and 88% of those who did so assigned a GS 4 to < 1% of cancers. Cribriform Gleason pattern (GP) 3 was acknowledged by 88% but a majority of them would classify < or =20% of cribriform patterns as GP 3. One third only accepted cribriform or fusion patterns as GP 4, but two thirds also included incomplete or poorly defined glands. For GP 5 to be identified on NBX, 83% required clusters of individual cells, strands, or nests seen at less than x40 lens magnification. Only 26% defined GS on NBX as primary + tertiary GP, and a majority would mention a tertiary pattern separately. For NBX, global or highest GS was reported by 40% and 10%, respectively, whereas 46% only gave a separate GS for each individual NBX core. In conclusion, there is a need to standardize practical application of Gleason grading both in terms of interpretation of patterns as well as how grading is reported. Our survey data provide information to general pathologists about the most common grading practices among genitourinary pathologists.

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The questionnaire clearly disclosed controversies among pathologists regarding how to report Gleason grading. During the annual meeting of the United States and Canadian Academy of Pathology (USCAP) held in San Antonio, Texas, 2005, a consensus meeting on Gleason grading was organized by JI Epstein. Over 70 urological pathologists were invited to attend and the result of the meeting shall be published in the American Journal of Surgical Pathology. Three recommendations are particularly useful for the urologist:

- a) Gleason score 4 rarely is seen on needle biopsies and almost never the lesion is seen in its totality due to the thickness of the core, therefore, a note should be added to the report stating that the Gleason score probably is underestimated;
- b) in case a tertiary grade is present on needle biopsies, the consensus of the group was to report the primary pattern and the highest grade as the secondary pattern. Example: grade 3 (60% of the area), grade 4 (30% of the area), grade 5 (10% of the area) - Gleason 3 + 5 = 8;
- c) each core should be graded individually; the urologist should consider the highest score.

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## INVESTIGATIVE UROLOGY

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### **The Macedo-Malone antegrade continence enema procedure: early experience**

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**Purpose:** The successful treatment of fecal incontinence can dramatically improve the quality of life of affected children. The introduction of the Malone antegrade continence enema provides the opportunity to manage previously resistant cases. However, using the appendix to create this catheterizable channel is not always possible, and the duration of these antegrade enemas is a source of concern for the patients. We describe a new approach to create left continent colonic access to shorten the duration of these enemas, and report the experience gained from the first 9 cases managed at our institution.