Prostate cancer: Diagnosis, parametric imaging and standardized report

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KEYWORDS
MRI; Multiparametric; Prostate; Report

Abstract  Multiparametric MR of the prostate provides an extremely accurate diagnosis and offers an excellent negative predictive value for cancers which biopsies struggle to detect. Combined with biopsies they consolidate both positive and negative biopsy results and allow patients to be offered more appropriate treatments (active monitoring, radical treatment in full knowledge of the topography of the lesions involved, or local treatment, etc.). The investigation does not require advanced equipment and can be carried out in any MR centre although it needs to follow a technical protocol described in the European guidelines (ESUR 2012). Interpretation should be standardized to facilitate communication of clear and consistent information between practitioners.

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There is currently an ongoing debate on the management of prostate cancer, which is believed to be diagnosed too early because PSA is excessively sensitive and to be treated too invasively. MR imaging of the prostate could offer a solution to these problems as it now allows a very accurate distinction to be made between “significant” cancers requiring radical therapy and those deemed to be “insignificant” [1,2], in which a more conservative approach such as active monitoring can be used. Together with new biomarkers, it can also be used to assess how aggressive the tumour is [3]. Our group has recently demonstrated that carrying out MR before the first series of biopsies improves the diagnosis of significant prostate cancers by approximately 16% [4]. Although this approach is not yet officially recommended pending a large scale medico-economic assessment, new specialist centres are using multiparametric MR of the prostate and incorporating this routinely into their pre-treatment and diagnostic approach.

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Technological changes in prostate imaging, some of which rapid or contentious, have suggested that the investigation is reserved for specialist centres: endorectal coil, investigation on a 3 T machine, spectroscopy, electronic data analysis, etc. Technical differences have also led to variability of reports to the effect that MR has been seen as complex, inaccessible, poorly reproducible or clinically unusable.

In 2010, Dickinson et al. published the first professional guidelines describing the clinical indications and practical processes for carrying out "multiparametric" prostate MR, proposing "rational" technical choices appropriate for the indications defined by clinicians in everyday practice, some of which went counter to the official rather than old guidelines [5]. Significantly, and a new feature inspired from the advances in standardizing breast imaging, the authors also for the first time recommended international use of a standardized grid to describe the location of lesions and a standardized scale to provide a simple description of the degree of suspicion of the abnormalities seen. In 2012, the European Society for Uroradiology (ESUR) approved and to a large extent reiterated these professional guidelines and proposed the first version of a score entitled the "Pi-RADS'' [6] analogous to the "BI-RADS'' score used in breast imaging. Since then, urologists and oncologists have had a practical, clear standard. The investigation has become standardized and more accessible and its interpretation, which is also being standardized, is better understood and communicated.

This article provides a brief overview of the technical features (protocol) for multiparametric prostate MR and describes the process used to obtain a standardized, simple, intelligible report for our referring physicians.

How is multiparametric prostate MR performed?

Prostate MR was described as "multiparametric" at the end of the 2000 decade when it became apparent that it was not sufficient to settle for single T2 weighted morphological imaging (occasionally combined with spectroscopy) [7]. The current ESUR 2012 guidelines confirm that "multiparametric” MR (mp-MR) of the prostate gland should incorporate at least 3 different imaging techniques, each improving the sensitivity or specificity of the diagnosis. These sequences are complementary and cannot be substituted as they define different histological appearances [8].

The ESUR distinguishes two imaging protocols, one to detect the lesions and the other to assess their extraprostatic extension (staging). This requires high spatial resolution T2 weighted imaging (0.3 mm), which can only be achieved with an endorectal coil on some instruments. For almost 10 years however, the majority of manufacturers have offered high-resolution pelvic coils (HRPPA), which easily enable this resolution to be achieved and therefore avoid the cost and discomfort of the endorectal coil. Regardless of the technique used, the ESUR recommends that in both situations:

- the whole gland be covered in all of the sequences;
- all of the axial sections be imaged along a plane perpendicular to the posterior aspect of the prostate rather than strictly in the axial plane. This setting is facilitated by carrying out T2 weighted land-marking which clearly shows the hyperintensity of the posterior peripheral area in contrast with the iso-intense rectal wall on T2 weighted imaging;
- 3 mm thick T2 weighted images be taken in the axial and sagittal planes;
- diffusion weighted imaging (DWI) be carried out based the T2 weighted image with calculation of the ADC map using at least 3 diffusion gradient values "b": 0; 100 and one value over 800 (we recommend 1000 or 1300 on a conventional 1.5 T instrument and 2000 on a modern 1.5 T or 3 T instrument);
- a dynamic contrast enhanced image (DCEMRI) be taken over 5 minutes with a minimum temporal resolution of 15 sec. The images can be analyzed visually as can the enhancement curve if a significant lesion is present. The initial image without contrast enhancement can be used to look for hemorrhagic artifacts;
- spectroscopic imaging only be carried out optionally as it adds 10 to 15 minutes to the protocol.

Compared to these specifications, we would recommend:

- that wherever possible and as often as possible, the investigation be performed before the prostate biopsies are taken (NB: this practice is not explicitly recommended by the French National Health Authority pending a medico-economic validation although very significantly improves the diagnosis of cancer and at the same time enables a staging assessment to be carried out without artifacts and in addition, without delay);
- that the patient be optimally positioned with a coil centered perfectly on the prostate gland (which can be checked on the land-marking image);
- that for the T2 weighted images, a rapid image is obtained in the coronal plane centered on the median part of the gland and a high-resolution coronal image to clearly visualize the confluence of the seminal vesicle ducts;
- that in addition to the ADC parametric card, plain diffusion weighted images with a high ‘‘b’’ gradient (b1200 or b2000) be used to interpret the diffusion weighted imaging. These offer different contrast to the ADC map which, although it remains the basis for visual interpretation for diffusion weighted prostate imaging, can fail to detect a peripheral lesion with a low apparent diffusion coefficient in contact with the periprostatic fat, which is also hypo-intense (as it is saturated). The lesion remains hyperintense on the plain sequences whereas the fat remains saturated and hypo-intense;
- that attempts be made to achieve temporal resolution of under 10 sec for the dynamic image.

Standardizing image interpretation

Constituent parts of the report

Prostatic mp-MR should answer the questions raised by the majority of urologists. These answers should be easily
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accessible and intelligible depending on the context in which
the report is being read (consultation, multidisciplinary
meeting, etc): ‘‘Is a cancer present which has been
missed on biopsies or requires guided biopsies?’’, ‘‘Where is the
significant cancer?’’ ‘‘How many cancers are present in the
gland?’’, ‘‘Where are the risks for the surgical resection
margins?’’, ‘‘Can the patient be offered curative treat-
ment?’’. There are many such questions, although they are straightfor-
ward and require a clear and structured answer. This was
the conclusion of the 2010 consensus conference reiterated
by the ESUR in 2012. The MR information should therefore
follow a clear structure:
• dimensions of the gland and measurement of volume
(which is always useful to assess operability). Repercus-
sions of the adenoma on the bladder floor (median lobe);
• description of the overall appearance of the 3 main zones
of the prostate (the features which are specific to each
one):
  ◦ appearance of the peripheral zone. The report should
state whether the gland is easy to interpret (obvious
T2 hyperintensity) or whether it contains degenerative
changes (such as bleeding) which hinder interpretation
of the image,
  ◦ appearance of the transition zone: overall volume, sym-
metry and the repercussions it is causing,
  ◦ appearance of the anterior fibromuscular stroma: develop-
ment, whether or not nodular in appearance,
whether or not it enhances with contrast;
• Description of each significant lesion, reporting for each:
  ◦ its axial size in mm,
  ◦ its topography (following the standardized 27-sector
  diagram): the main sector and the adjacent sectors
affected,
  ◦ a suspicion score from 1 to 5 (Table 1),
  ◦ another score, also from 1 to 5, to assess extraprostatic
extension (Table 1). To do this, the ESUR recommends
that a scale from 1 to 5 be used, details of which are
available in the original publication [6], although we
recommend that it be read slightly differently, to give a
score of 1 if no suspected extension is present (whereas
the ESUR score of 1 indicates that doubt is already
present about possible extension).

The report conclusion should clearly state whether the
investigation is interpreted as normal and if not, whether a
lesion requires a guided sample to be taken at the time of
biopsy.

Site of the lesions

ESUR proposed different ways of sub-dividing the prostate
into 8, 16 or 27 sectors. The 27-sector subdivision (Fig. 1),
which our group has described [9], is the only one which dis-
tinguishes cancers in the anterior fibromuscular stroma and
which is also suitable for routine practice. It involves using
the 12 posterior sectors from which routine prostate biops-
ies are taken and adding to these the 12 anterior sectors
representing those areas beyond the 17 mm of the posterior
biopsies and 3 anterior median sectors where AFMS tumours
are located. A total of 27 sectors are described. In this
arrangement, the 12 posterior sectors represent the most
posterior 17 mm of the gland (suffix ‘‘p’’), from which rou-
tine biopsies are taken. This means that they may include
the posterior part of the transition zone. Conversely, the
anterior sectors (suffix ‘‘a’’) may represent peripheral zone
tissue, particularly in the anterior lateral horns. This dis-
tinction makes the 27-sector segmentation a ‘‘practical’’
register consistent with current biopsy topography. The grid
is suitable for radiologists, histologists, urologists and onco-
logists.

Image reading methods

Interpretation of a suspicious image varies depending on its
intraprostatic location. We recommend that a systematic
scheme be used for reading, moving independently through
the 3 main compartments of the prostate: peripheral zones
(PZ), transition zone (TZ) and then the anterior fibromus-
cular stroma (AFMS), as the appearances of each area are
very different. A point-by-point systematic analysis speeds
up reading and avoids any part of the gland being missed.

| Score  | Significance (brief) | Significance in the context of the description of the lesion | Significance in the context of the description of extraprostatic extension of a lesion |
|--------|----------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------
| Score 1 | Not suspicious        | Very unlikely to contain a clinically significant lesion     | Extension very unlikely                                                      |
| Score 2 | Relatively unsuspicious | Unlikely to contain a clinically significant lesion     | Extension unlikely (no direct or indirect signs)                             |
| Score 3 | Equivocal             | It is not possible to state whether a clinically significant lesion is present| Equivocal appearances, unable to draw conclusion (uncertain, indirect or direct signs) |
| Score 4 | Suspicious            | Likely to contain a clinically significant lesion         | Likely extraprostatic extension (direct sign)                                |
| Score 5 | Highly suspicious      | Highly likely to contain a clinically significant lesion | Definite extraprostatic extension (obvious direct sign)                       |
Figure 1. Diagram showing the 27 regions of interest recommended to describe the topography of a suspicious lesion on multiparametric prostate MR. Three diagrammatic sections of the base, the middle part and the apex are divided into anterior and posterior regions. The posterior regions (p) are subdivided into medial and lateral lobule areas (n = 12). The anterior regions (a) are symmetrical to the posterior regions (n = 15). They begin 17 mm in front of the anterior surface of the gland (the limit of the biopsy core). Three median regions are identified representing the anterior fibromuscular stroma. This diagram can be used for the structured report.

In practice, we also recommend that the mp-MR investigation be read with appropriate software which simultaneously displays:
- a sagittal landmark section for the axial plane;
- axial-T2;
- high b diffusion weighted imaging (eg. b2000);
- ADC map;
- T1 weighted image without enhancement;
- dynamic T1 weighted image (DCEMRI) as soon as possible after the ‘‘T’’ contrast has reached the gland;
- DCEMRI at T + 1.

Ideally, the software should be able to show you the enhancement curve for a region of interest and provide you with semi-quantitative information. The software must be equipped with 3D ‘‘pointer’’ function to immediately identify a lesion in an image and see its appearances immediately in the other images.

Appearance and scoring the lesion

Interpretation of the ‘‘severity’’ of a suspicious mp-MR image should be standardized in order to improve inter- and intra-observer reproducibility of reading. It should be based on a summary of the appearances seen in all of the multiparametric imaging sequences, which are not entirely similar depending on the zone in which the lesion is located. This is summarized in Table 2.

Many groups have already tried to classify lesions using different scales [10,11]: usually a 5 point scale is chosen as this offers an ‘‘intermediary’’ score (3/5) representing cases in which it is not clearly possible to establish the nature of the tissue, and leaving uncertainty (‘‘equivocal’’ 3/5).
Table 2  Appearances of prostate lesions depending on their zonal topography. The allocation of a standardized suspicion score on a 1 to 5 scale for each significant image seen in the gland should be based on the topography of the lesion (PZ, TZ or AFMS) and the summary of the appearances. Some of these appearances are an overview of the findings from several images in the multiparametric protocol.

<table>
<thead>
<tr>
<th>Level of suspicion</th>
<th>Peripheral zone (PZ)</th>
<th>Transition zone (TZ)</th>
<th>Anterior fibromuscular stroma (AFMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Signs highly suspicious of a tumour lesion</strong></td>
<td>Consistent finding of an obvious T2 weighted hypo-intensity, obvious restricted diffusion and early contrast enhancement Hypo-intense T2 weighted nodule with convex borders clearly contrasting with the remainder of the peripheral zone Profound restriction of diffusion (&lt; 0.9 mm²/s), with no obvious nodule Early more intense contrast enhancement contrasting with the rest of the PZ</td>
<td>Consistent finding of an obvious T2 weighted hypo-intensity, obvious restricted diffusion and early contrast enhancement TZ nodule invading the AFMS or PZ Poorly delineated nodule “breaking the symmetry” of the adenoma Very homogeneous appearance (“pass through filter paper”) Non-circular nodule Located in the anterior half of the TZ and in the inferior half of the gland Located in the superior rather than inferior half of the TZ Iso-intense or weak T2 hypo-intense on T2 weighted imaging (similar to the rectum) Image only visible on high b plain diffusion weighted imaging (&gt; 1500)</td>
<td>Enhancement present even if weak+++ Iso-intense on T2 weighted imaging (usually its normal image is very weak and similar to that of the obturator or bladder muscle)</td>
</tr>
<tr>
<td><strong>Signs suspicious of a tumour lesion</strong></td>
<td>Triangular T2 weighted hypo-intense area with a peripheral base in a PZ which is otherwise hyperintense on T2 weighted imaging Profound restriction of diffusion (&lt; 0.9 mm²/s), with no obvious nodule Early more intense contrast enhancement contrasting with the rest of the PZ</td>
<td>TZ nodule invading the AFMS or PZ Poorly delineated nodule “breaking the symmetry” of the adenoma Very homogeneous appearance (“pass through filter paper”) Non-circular nodule Located in the anterior half of the TZ and in the inferior half of the gland Located in the superior rather than inferior half of the TZ Iso-intense or weak T2 hypo-intense on T2 weighted imaging (similar to the rectum) Image only visible on high b plain diffusion weighted imaging (&gt; 1500)</td>
<td>Very early intense contrast enhancement contrasting with the rest of the TZ (relatively non-specific) Irregular borders “Swollen” nodular appearance of the AFMS (relatively non-specific)</td>
</tr>
<tr>
<td><strong>Non-specific signs</strong></td>
<td>Posterolateral rather than median location</td>
<td>Very early intense contrast enhancement contrasting with the rest of the TZ (relatively non-specific)</td>
<td></td>
</tr>
<tr>
<td><strong>Signs suggestive of a relatively non-specific lesion</strong></td>
<td>Fine non-nodular “band” image abnormality more perpendicular on the surface of the prostate</td>
<td>Location in the posterior half of the TZ “Circular” nodular appearance</td>
<td></td>
</tr>
<tr>
<td><strong>Signs suggestive of a very probably benign lesion</strong></td>
<td>Strong symmetrical hypo-intensity tending to be lateral at both bases (this is the central zone: the “horseshoe” sign)</td>
<td>Hypo-intense areas present on T2 Or diffusion weighted imaging Very significant hypo-intensity on T2 weighted imaging (similar to that of the obturator muscle)</td>
<td>No enhancement</td>
</tr>
</tbody>
</table>
The ESUR recommends that a score be allocated to each sequence and that a summated score known as the “Pi-RADS” be produced [6,12]. This is a useful approach, as it requires a systematic analysis of the images. Portalez et al. used the “somated” ESUR score on patients who underwent a second biopsy series with a threshold of ≥ 9 out of 15, and found a sensitivity of 73.5%, a negative predictive value of 95.2%, and accuracy of 80.4% [13]. Schimmoller et al. confirmed that inter-observer reproducibility using this technique was satisfactory in a similar population (2nd biopsy series) [14]. Other groups however, including Rosenkrantz et al. have compared the performance of the calculated ESUR score and a simple subjective score from 1 to 5 in a retrospective population of 70 patients before prostatectomy and found no significant difference except for the transition zone in which paradoxically the subjective score was more effective [15]. Pending a prospective, multicenter validation of the ESUR Pi-RADS score (the calculation methods for which will be described in greater detail) on a population of patients before their first biopsy series, we recommend that each image be analysed separately and that a “personal” summary score of 1 to 5 be given for each lesion (Table 2). This summary score should not be a simple arithmetic mean as some lesions which may be only marginally suspicious on one image (T2 or diffusion weighted, for example) may be quite clearly suspicious on another (on a contrast enhanced image, for example).

Conclusion

Standardizing the MR imaging protocol for the prostate is an essential stage in improving its accessibility and incorporating it into the disease management process. Modern MR instruments can use a simple rapid reproducible “multiparametric” protocol, which performs extremely well in locating significant lesions. All of these aspects benefit patients. The clinical indications and standard protocols are now clearly defined and approved by the learned societies on a European level. Radiologists need to work on the reliability and reproducibility of the results reported by harmonizing their interpretation techniques (training) and using structured reports that facilitate understanding and communicating results.

Clinical case

Quiz 1

Clinical details: sixty-nine year old patient with fluctuating PSA levels, 2.4 ng/mL 3 years ago; 5.7 ng/mL 1 year ago and 3.8 ng/mL recently. A first biopsy series was performed in another centre not guided by MR prebiopsies. A 1-mm microfocus was found, Gleason 3+3 on biopsy “5” (Fig. 2).

Answers

1. Where was the patient’s cancer located? (one answer only)
   a. On the right.
   b. At the left apex.
   c. At the right base.
   d. Impossible to answer as the urologist’s biopsy sites are not known.

2. Why was this patient not treated 6 months ago? (there are several correct answers)
   a. It is possible he did not wish to be treated.
   b. Because the cancer is not significant and active monitoring was appropriate.
   c. Because the cancer was located in an area which is inaccessible to surgery.
   d. Because a cancer is not treated without second histological proof.
   e. Because it may be too small in size.
   f. Because the perfusion imaging shows lesions which diffusion weighted imaging cannot show (and vice versa).

T AKE-HOME MESSAGES

- Multiparametric prostate MR is an essential investigation for optical management of prostate cancer.
- It is a 25-minute investigation, which is straightforward to perform on any instrument provided that certain technical guidelines are followed (ESUR 2012) and that the protocol is not shortened.
- After simple training, it is possible to produce high quality interpretation and a standardized report, which are cornerstones for the development of this technique.
Figure 2. A 1-mm microfocus was found on a first biopsy series. Gleason 3 + 3 on biopsy ’5’. Prostatectomy confirmed a 12-mm Gleason 3 + 4 = 7 left basal lesion.

b) False. The endorectal coil has not been shown to improve detection of intraprostatic lesions.

c) False. Diffusion weighted imaging using 3 different ’b’ diffusion gradients is recommended, the highest of which is over 800, although excellent images can be obtained with a lower gradient (in this case b = 600).

d) True. If a lesion is in contact with the fatty prostate surface (saturated) its ADC hypo-intensity may be undetectable. This disadvantage is overcome when the plain (high b value) diffusion weighted images are read.

e) True. The threshold for detection of prostatic lesions is in the region of 7 mm in the peripheral zone and 10 mm in the transition zone.

f) True. The ’multiparametric’ MR ’functional’ images are complementary and synergistic.

Final comments on the case

This patient had a Gleason 3 + 4 + 7 (aggressive) adenocarcinoma on 3 of the 4-guided biopsies (5, 5 and 6 mm) and on two routine biopsies from the left apex (2 mm and 4 mm). He was treated by focused ultrasound because of his age. This case illustrates the benefits of MR in correctly classifying patients as suitable or unsuitable for active monitoring and the merits of ’multiparametric’ image reading.

Questions

1. In which standardized sector would you place this image? (one answer only)
   a) z02a
   b) z08a
   c) z12c
   d) z08p
   e) z09p

2. What score would you give this image? (one answer only)
   a) 1/5 as it is not suspicious on diffusion weighted imaging
   b) 2/5 as it is not suspicious on T2 weighted imaging
   c) 3/5 as it is equivocal in all of the images
   d) 4/5
   e) 5/5

3. How would you score the extraprostatic extension? (one answer is correct)
   a) 1/5 or 2/5
   b) 2/5 or 3/5
   c) 3/5 or 4/5
   d) 4/5 or 5/5
   e) I cannot score it as there is no endorectal coil

4. How would you score the hypo-intense image located in the right peripheral zone? (one answer is correct)
   a) 1/5
   b) 2/5 or 3/5
   c) 4/5 or 5/5

Quiz 2

Clinical details: fifty-seven-year-old patient with a raised PSA of 4.25 ng/mL and a ratio of 26% 1 year ago compared to 3.57 ng/mL 4 years ago. Assessment before a first series of biopsies. The patient has a suspicious MR (Fig. 3).
Answers

1. Answer: B. Comments:
   a) False: right anterior lateral base
   b) True: left basal anterior horn. From the sagittal image the tightest margin can be seen to be at the base. The images in the peripheral zone and not therefore zone \( z07a \)
   c) False
   d) False: the image is anterior although it is in the "peripheral" zone
   e) False

2. Answer: E. Comments:
   a) False. The image is very suspicious as it has typical appearances of nodular hypo-intensity on the T2 weighted image in a peripheral zone, which is overall T2 hyperintense hypo-intense on the ADC map early intense enhancement consistency between signs posterolateral topography in PZ
   b) False: same comment
   c) False: same comment
   d) False: same comment. The lesion here is more than "suspicious" as it has all the signs of disease
   e) True: same comment

3. Answer: A. Comments:
   a) True. Although the lesion was in contact with the surface of the prostate there are no direct signs of extension beyond this
   b) False: idem
   c) False: idem
   d) False: idem
   e) False: the endorectal coil has not been shown to improve detection of extraprostatic extension compared to a high-resolution pelvic coil, particularly for anterior lesions

4. Answer: B. Comments:
   a) False: the right basal image is not nodular but it is clearly distinct from the rest of the parenchyma on T2 weighted imaging (3/5). It is almost invisible on the diffusion weighted image (1/5), and exhibits very weak enhancement on perfusion imaging (2/5). Overall it is relatively non-suspicious
   b) True: idem
   c) False: idem

Final comments on the case

The biopsies from this patient showed 1 positive routine biopsy at the left base: 2 mm Gleason 3 + 3 = 6, 1 positive routine biopsy at the right base (Fig. 3): 3 mm Gleason 3 + 3 = 6, 2 positive guided biopsies from the nodule at the left base (Fig. 2): 3 and 4 mm Gleason 3 + 3 = 6. Prostatectomy confirmed a 12-mm Gleason 3 + 4 = 7 left basal lesion (Fig. 2) and an infiltrating focus of disease, Gleason 6, 10 mm in size at the right base, pT2cN × R0. This case illustrates the benefit of MR before prostate biopsies. Without MR the patient would have been placed on active monitoring despite having a significant cancer. It also shows that diffusion weighted imaging can fail, particularly with low-grade lesions.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.
Appendix A.

REPORT: PROSTATE CANCER

PHILIPPE PUECH POUR LA SIGU

Clinical details: age, PSA, PSA kinetics, previous measurements, rectal examination, urinary symptoms, family history
Date of any previous prostate biopsy:
Comparative imaging investigations (type, date):

Gland:
- Volume, dimensions, any medium lobe, symmetry
- Peripheral zone: image, presence of artifacts, inflammatory changes
- Transition zone: image, size, ratios
- Anterior fibromuscular stroma: contrast enhancement: Yes / No

Description of each lesion:
- Explicit zonal topography (diagram)
- Intraprostatic extension
- Size [mm] in all 3 planes
- Level of suspicion of malignancy from 1 to 5 (table)
- Extraprostatic extension from 1 to 5 (table).
- For basal lesions, describe seminal vesicle extension.
- For apical lesions, describe extension to the sphincter

Lymphadenopathy: Yes / No
Bone metastasis(es): Yes / No
Other disease: (eg. rectum, …)

<table>
<thead>
<tr>
<th>Score</th>
<th>Significance (brief)</th>
<th>Significance in the context of the description of the lesion</th>
<th>Significance in the context of the description of extraprostatic extension of a lesion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score 1</td>
<td>Not suspicious</td>
<td>Very unlikely to contain a clinically significant lesion</td>
<td>Extension very unlikely</td>
</tr>
<tr>
<td>Score 2</td>
<td>Relatively unsuspicious</td>
<td>Unlikely to contain a clinically significant lesion</td>
<td>Extension unlikely (no direct or indirect signs)</td>
</tr>
<tr>
<td>Score 3</td>
<td>Equivocal</td>
<td>It is not possible to state whether a clinically significant lesion is present</td>
<td>Equivocal appearances, unable to draw a conclusion (uncertain, indirect or direct signs)</td>
</tr>
<tr>
<td>Score 4</td>
<td>Suspicious</td>
<td>Likely to contain a clinically significant lesion</td>
<td>Likely extraprostatic extension (direct sign)</td>
</tr>
<tr>
<td>Score 5</td>
<td>Highly suspicious</td>
<td>Highly likely to contain a clinically significant lesion</td>
<td>Definite extraprostatic extension (obvious direct sign)</td>
</tr>
</tbody>
</table>

SUMMARY AND CONCLUSIONS

Examination normal: Yes / No
Site of each lesion and likelihood of malignancy following the glossary.
Extraprostatic extension and likelihood using the glossary. Identification of lesion(s) with an at risk surgical resection margin.
Lymph node extension.
Management in terms of monitoring, biopsy(ies) to be taken.
References


