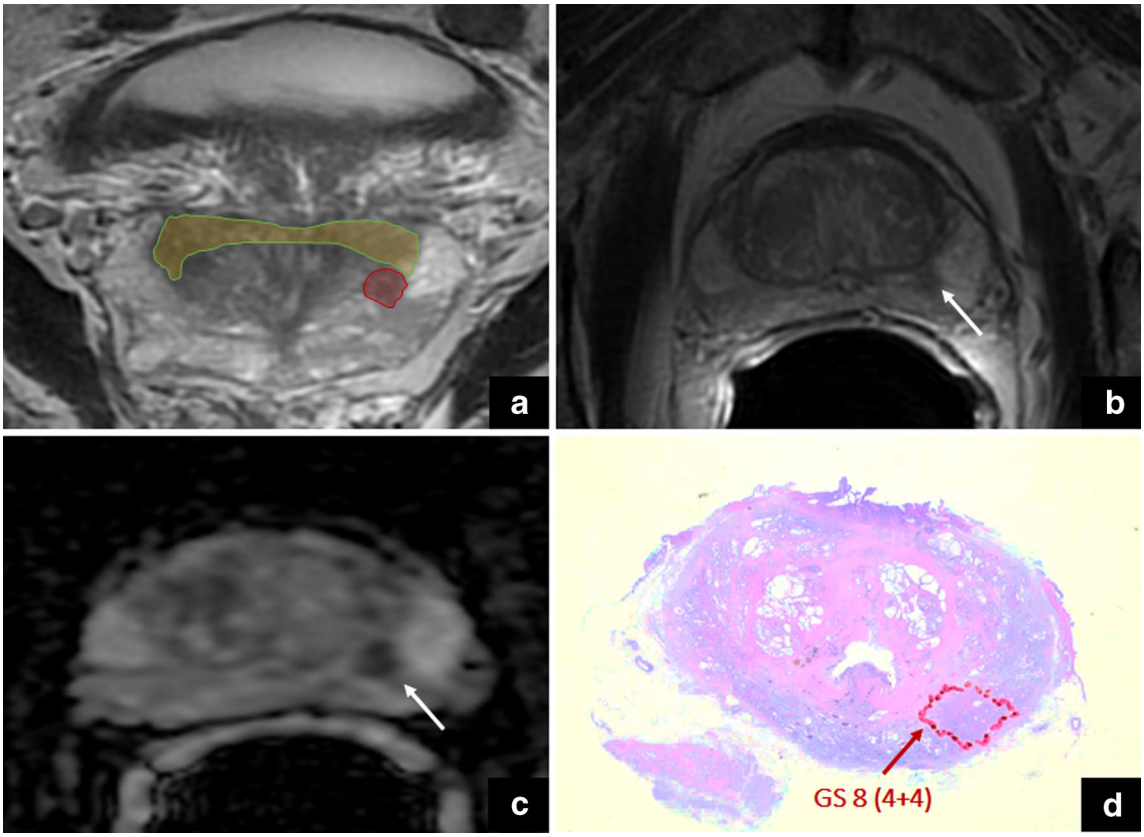

Fig. 6 The yellow area is the *moustache sign*. The arrows show a focal, asymmetric area characterised by low signal intensity on coronal (**a**) and axial (**b**) T2-weighted imaging, together with marked restriction on DWI (**c**). These findings suggest a suspicious lesion in the left peripheral zone (cancer in *moustache sign*), and this was confirmed at final histology after radical prostatectomy (GS = Gleason score 4 + 4) (**d**)

be initially misled by PI-RADS v.2 but the knowledge of both the anatomy and the pitfall can assist in the detection of PCa in the presence of a reversed teardrop area.

An area that is not in continuity with the central portion of the prostate, characterised by marked low signal intensity on T2-WI (scored as 4/5) together with an early uptake of contrast (+) and a high grade of restriction on DWI (scored as 4/5) can be correctly classified as a highly-suspicious lesion.

Again, it is very important to understand the mpMRI anatomy of the prostate to detect cancer in the context of a pitfall

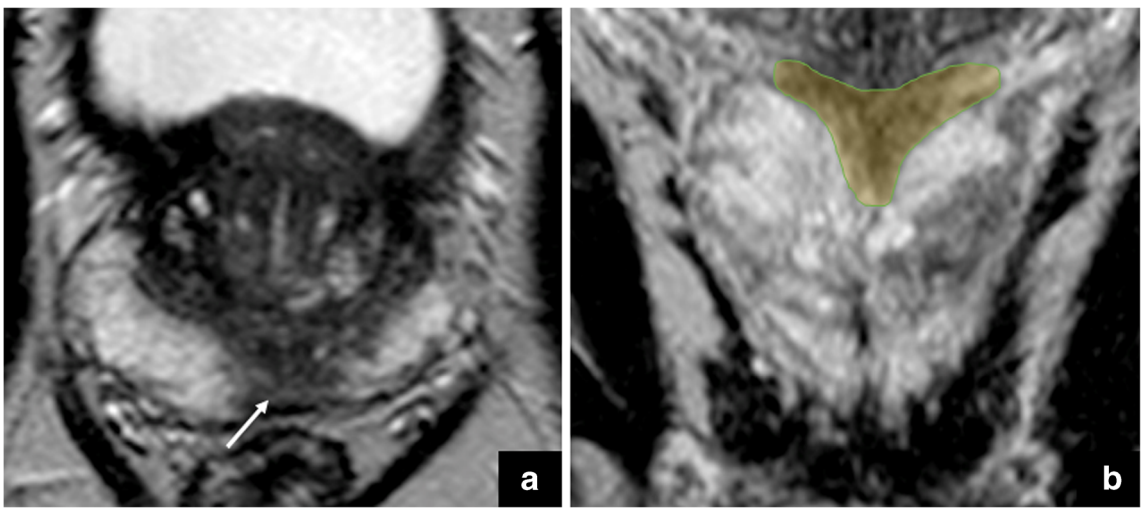

Fig. 7 Axial T2-weighted image (**a**) that shows a hypointense area at the prostate base, in the peripheral zone. This aspect is a variant/extension of the *moustache sign*, in which the central zone is compressed between the transitional and peripheral zones, adopting a *teardrop* shape, as represented by the yellow area in the coronal T2-weighted image (**b**)

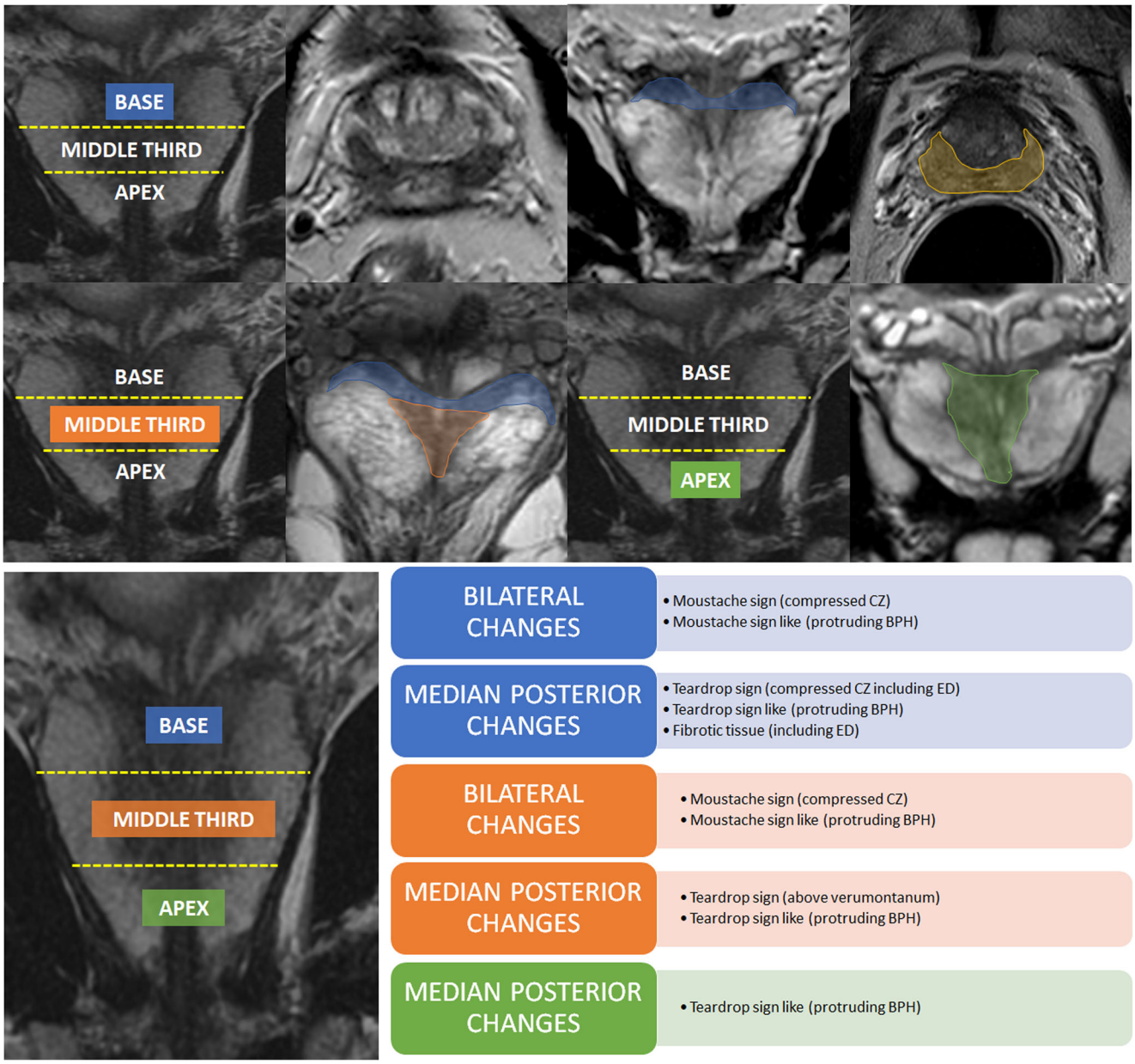

Fig. 8 Summary of the different signs (*moustache* or *teardrop*) at different levels. CZ = central zone; BPH: benign prostatic hyperplasia; ED = ejaculatory ducts

(median posterior BPH proliferation). Sometimes some fibrotic tissue can be seen adjacent to the ejaculatory ducts. This is a low-signal intensity area, with restricted diffusion but showing late enhancement on DCE imaging (i.e., there is no early contrast uptake like in PCa) (Fig. 10).

Ectopic BPH nodule

The presence of an ectopic, focal peripheral nodule characterised by low signal intensity on T2-WI, with sharply defined margins, restricted diffusion and enhancement similar to the central portion of the hypertrophied TZ, could be erroneously interpreted as PCa in the PZ [12–13]. Moreover, the presence of the pseudocapsule along with tiny bright spots (corresponding to dilated acini) is consistent with a nodule of stromal BPH, which may sometimes protrude from the central zone. Not recognising an ectopic nodule of BPH in the PZ may lead to the use of DWI as dominant sequence in the PZ, grading this area as 4/5. Conversely, in the presence of an ectopic nodule, T2-WI can be used to score this zone, as this is the dominant sequence for the TZ. Such an approach would yield a 2/5 score and, therefore, downgrade the finding from a malignant lesion to a benign condition (Fig. 11).

However, as there are no established guidelines that suggest scoring a TZ lesion that protrudes into the PZ using the dominant sequence from the TZ (rather than PZ), we deem