

## Perineural invasion (Core)

Multiple independent studies and one meta-analysis have demonstrated the adverse prognostic implication of perineural invasion in colorectal cancer, particularly in stage II disease.<sup>1,2</sup> One large multicentre study reported adverse prognostic significance of both intramural and extramural perineural invasion.<sup>1</sup> However, the importance of anatomic location in perineural invasion is not well established.

In malignant polyps, perineural invasion is extremely rare. It can sometimes be found in endoscopic resection or transanal endoscopic microsurgery (TEMs)/transanal minimally invasive surgery (TAMIS) for early rectal carcinomas.

## References

- 1 Ueno H, Shirouzu K, Eishi Y, Yamada K, Kusumi T, Kushima R, Ikegami M, Murata A, Okuno K, Sato T, Ajioka Y, Ochiai A, Shimazaki H, Nakamura T, Kawachi H, Kojima M, Akagi Y, Sugihara K and Study Group for Perineural Invasion projected by the Japanese Society for Cancer of the Colon and Rectum (2013). Characterization of perineural invasion as a component of colorectal cancer staging. *Am J Surg Pathol* 37(10):1542-1549.
- 2 Liebig C, Ayala G, Wilks J, Verstovsek G, Liu H, Agarwal N, Berger DH and Albo D (2009). Perineural invasion is an independent predictor of outcome in colorectal cancer. *J Clin Oncol* 27(31):5131-5137.