

SHORT REPORT

Is microscopic assessment of macroscopically normal hysterectomy specimens necessary?

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Aim: To determine whether microscopic examination of macroscopically normal hysterectomy specimens yields findings that could alter subsequent clinical management.

Methods: All pathology reports on hysterectomy specimens submitted to the department of histopathology at the Northern General Hospital from January 1997 to December 1998 were reviewed. Cases were included for further assessment if the hysterectomy specimen was regarded as macroscopically normal by a consultant pathologist and if the patient had no history of, or suspicion of, neoplastic disease. The subsequent microscopic findings from these cases were assessed to determine whether any lesions of clinical importance were identified.

Results: Eight hundred and fifty four specimens were reviewed, of which 139 were suitable for inclusion. Only one of the 139 cases harboured a microscopic abnormality that necessitated specific clinical follow up; this was a focus of cervical intraepithelial neoplasia 2 (CIN 2). On follow up of that patient, no further neoplastic disease was identified.

Conclusion: Microscopic assessment of macroscopically normal hysterectomy specimens does not contribute to patient management and is unnecessary in an era of manpower shortage and cost containment.

There is a manpower crisis in histopathology in the UK, with many departments being understaffed. There is an ever increasing workload and appraisal of the use of pathologists' time is appropriate. Previous suggestions to reduce the histopathology workload include selective examination of frequently submitted specimens such as gallbladders, appendices, lipomas, nasal polyps, and prolapsed or fibroid uteri.¹ However, it is only with regard to a small number of specimen types, such as re-excision of cutaneous melanoma² and urine cytology,³ that advice on the reduction of workload by reducing microscopic assessment is evidence based. A large number of specimens are submitted to histopathology departments for microscopic examination where it is felt that this examination is inappropriately time consuming, costly, and contributes little if anything to the further management of the patient.

The focus of our study was macroscopically normal hysterectomy specimens. A previous study of incidental pathological findings in uterine prolapse specimens shares some common ground with our work.⁴ In that study of incidental findings, two cases of carcinoma were identified that were not suspected clinically, but were visible on macroscopic examination. Other non-neoplastic and clinically unimportant lesions were detailed. The aim of our present study was to determine whether specimens that are macroscopically normal need to be examined microscopically.

METHODS

All hysterectomy specimen reports, including hysterectomy with and without salpingo-oophorectomy, at the Northern General Hospital histopathology department from the period January 1997 to December 1998 were reviewed. Specimen reports were retrieved by computer search. All histopathology reports in our department include the clinical history provided on the specimen request form. The cervical smear history is easily retrieved from computer records. The clinical history was noted and cases were excluded if the indication for removal was malignant disease or if there was any previous history of, or suspicion of, neoplastic disease, including an abnormal cervical smear. The macroscopic description of the included cases was reviewed. Specimens not assessed macroscopically by a consultant or those showing any macroscopic abnormality such as leiomyomas, endometrial irregularity, or suspected endometriosis were also excluded. Where relevant, smear history and medical records were assessed to confirm the clinical relevance of incidental microscopic findings. Block selection was in accordance with published guidelines.⁵

RESULTS

During the review period, 854 hysterectomy specimens were received. One hundred and thirty nine were suitable for inclusion by the above criteria. The Northern General Hospital is a tertiary gynaecological oncology referral centre and therefore a high proportion of hysterectomies are performed for neoplastic disease. Surgery in the included cases was performed for a variety of indications including uterine prolapse, dysmenorrhoea, menorrhoea, and pelvic pain. The total number of blocks taken from these cases was approximately 556.

Of the 139 specimens, microscopic abnormalities of no clinical relevance were identified as follows: adenomyosis (24 cases), leiomyomas (five cases), endosalpingiosis (one case), and benign endometrial polyp (one case). Two further specimens contained endometriosis; however, review of the case notes confirmed that, on follow up, no problems attributable to endometriosis occurred in either patient.

One specimen showed a solitary focus of cervical intraepithelial neoplasia 2 (CIN 2) in one of two preliminary blocks of cervix. Seven further blocks were assessed and found to be normal. The clinical details given were menorrhagia and dysmenorrhoea. The cervix was explicitly described as macroscopically normal by the pathologist. The patient had previous cervical smears in 1992 and 1996 that were reported as negative and were confirmed to be negative on review. Subsequently, she had two vault smears that were also negative at 10 and 23 months after surgery.

Abbreviations: CIN, cervical intraepithelial neoplasia

DISCUSSION

At a time when the workload in histopathology departments is increasing, it is important to identify areas where time may be saved without compromising the clinical management of patients. One approach to reducing pathologists' workload is to increase the involvement of biomedical scientists in specimen cut up. The Royal College of Pathologists has recently produced draft guidelines covering this matter⁶ but it is likely that, in the short term, most departments would have difficulty providing the training suggested for biomedical scientists in view of inadequate resources and staffing. Although such an approach may be introduced in the long term, we believe that a considerable amount of time can be saved now by not processing certain specimens after macroscopic assessment by an experienced pathologist. It has been argued previously that many specimens submitted to departments do not require time consuming microscopic examination if a macroscopic examination reveals no obvious pathology. Previous reports in the literature focus on the advisability or not of submitting surgical specimens based on macroscopic appearance and clinical history.⁷⁻⁹ In these, the need for histopathological assessment has been a surgical decision. It has been argued that selective submission of nasal polyps according to strict criteria misses no clinically important lesions.⁷ It has also been suggested that histopathological examination of the appendix is only necessary if there is an obvious tumour or if the patient is over 50 years of age: however, this approach has been disputed by others.^{8,9}

In our study, the focus was on hysterectomy specimens that had been submitted for pathological assessment, the question being the degree of examination necessary to detect lesions of clinical importance. One hundred and thirty nine specimens were identified that showed no macroscopic abnormalities. Of these, one contained CIN 2. However, in the absence of evidence of disease on follow up, this specimen could have been handled by macroscopic examination only without any adverse clinical outcome. An alternative approach to alleviate concern about failure to identify cervical neoplasia would be routinely to take blocks from the anterior and posterior lips of the cervix in macroscopically normal hysterectomy specimens, as previously advised, even though a few cases of CIN will not be identified.¹⁰ Another approach would be to perform two postoperative vaginal vault smears at six and 12 months to ensure that vaginal intraepithelial neoplasia in continuity with CIN was not present: however, in our practice this would be a more expensive option than taking two additional blocks.

Over two years, 139 of 854 specimens (16%) need not have been examined microscopically, resulting in a saving of approximately 278 blocks each year. We acknowledge that this is a relatively modest saving of laboratory resources, but suggest that further substantial savings could be made by a similar approach to those hysterectomy specimens in which the

Take home messages

- The microscopic assessment of macroscopically normal hysterectomy specimens is unnecessary
- Although this would only result in modest savings, extending this approach to non-gynaecological specimens (such as gall bladders and tonsils) could result in substantial savings

only macroscopic abnormality is leiomyomas; a further study is planned. If this approach were to be adopted for other non-gynaecological specimens, such as lipomas, gall bladders, tonsils, and breast reductions in young women, substantial savings could result. The issue would then become one of storage space and cost, and the length of time that specimens should be stored in the current medicolegal climate.

In summary, we conclude that microscopic examination of macroscopically normal hysterectomy specimens removed outside the setting of neoplastic disease is unnecessary.

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