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Liver pathology in the UK – what do we do and how do we go about it?

Following a College questionnaire on liver biopsy reporting that was sent to histopathologists last July, Dr Judy Wyatt, Dr Chris Bellamy and Professor Stefan Hübscher report back on their findings.

As medicine advances, increasing complexity and sub-specialisation co-evolve. The Part 1 MRCPath examination in the early 1980s comprised a generic multiple-choice paper covering all four branches of pathology (histopathology, microbiology, haematology and clinical chemistry) and a practical in the chosen pathology discipline. The transition away from general pathology in our trainers' generation is mirrored now by progressive sub-specialisation within histopathology.

Since 2006, liver pathology has been represented separately from gastrointestinal pathology on the College's Histopathology sub-specialty advisers committee. This Committee has representatives from diverse specialties that vary in terms of the numbers of specimens received, the case-mix between neoplastic and non-neoplastic disease and the extent to which their clinical services are delivered in a widely dispersed or centralised manner. It is timely to ask how the delivery of liver pathology services compares with other pathology services, and what should be done to improve and maintain standards?

The initial investigation of patients with liver disease, up to and including liver biopsy, is often done in their local hospitals, and liver biopsy interpretation is thus highly dispersed. Indeed, probably all general histopathology departments receive some liver specimens, such as targeted biopsies from focal liver lesions, 'medical' liver biopsies and autopsy samples. The clinical practice of percutaneous liver biopsy was the subject of a UK National Audit in 1991,¹ and a repeat of this is being planned.

In the British Society of Gastroenterology (BSG) Liver Pathology Sub-Committee, we wanted to build a picture of current national practices for medical liver biopsy reporting, in order to make informed recommendations for appropriate training and CPD/'credentialing' requirements. We are grateful to the College for emailing our 'survey of medical liver biopsy reporting' to histopathology members in July 2008, and to the many members who responded. Areas covered by the questionnaire included:

- clinical delivery of liver services (hepatologist or gastroenterologist)
- the numbers and types of specimens received
- histopathologist subspecialisation

- specialist registrar training
- opportunities for clinical dialogue
- referral practices
- attitudes to liver biopsy reporting and liver pathology CPD.

The questionnaire and the results in full are available on the Liver Pages website.²

Respondents' clinical practice

At least one useful reply was given by 101 respondents, representing about 87 hospitals from at least 73 Trusts. Based on information received from the College, we estimate this is about 40% of relevant British histopathology departments. Most respondents did not answer all the questions.

The responding departments could be conveniently divided into those where liver patients were managed solely by gastroenterologists (51 departments, 61%), or those with a local hepatologist (32 departments, 39%, including six adult transplant centres and one paediatric transplant centre). The departments received between 25 and 1200 liver specimens per year, representing a median 0.8% (0.2–10%) of all specimens. The case-mix between different types of liver specimens ('medical' versus focal lesion) varied hugely, but medical liver biopsies and focal lesion biopsies represented a median of 55% and 30%, respectively, of all liver specimens.

Unsurprisingly, most departments conformed to one of two patterns in terms of liver workload and associated specialist reporting. Those with a local hepatologist received larger numbers of liver specimens (19/27 received over 300 per year), while those with liver patients cared for solely by gastroenterologists generated fewer liver specimens (35/36 had fewer than 300 liver biopsies per year). In all adult transplant centres and in 21/25 centres with a hepatologist, reporting was sub-specialised – this was unusual (11/51) in hospitals without a hepatologist.

For pathology trainees, there was a specific liver attachment in only 10/28 (36%) centres with a local hepatologist; a further three included liver training within a gastrointestinal attachment. Overall, 41 departments gave liver pathology experience within the context of a mixed workload. Only four centres had a trainee with a special interest in liver pathology.

Two-thirds of departments had a formal medical liver biopsy discussion meeting. Those without usually did not have a hepatologist and received fewer biopsies (median 30). Respondents who see few biopsies often read about them and discuss them with colleagues. Most pathologists discuss a sizeable proportion of their medical liver biopsies with the clinicians (either directly or via a multi-disciplinary (MDT) meeting) and this does not differ significantly between pathologists reporting more (more than 100 liver biopsies per year) or fewer biopsies.

Referral practices

Most pathologists send biopsies for a second opinion – a median of four cases per year (range 1–50). Approximately half of referrals are requested by local clinicians. The proportion of referrals tended to be higher for pathologists seeing fewer biopsies and most (72/82) felt the number to be about right.

Attitudes to liver biopsy reporting

Most respondents (69/89) enjoyed reporting liver biopsies. Of the other 20 (14 neutral, only six did not enjoy), all reported fewer than 50 biopsies per year (11 reported fewer than 20 per year) and worked in non-specialised departments.

CPD in liver pathology

Around half of the respondents had been to a liver-focused CPD meeting within the last two years and 66% said they wanted more time for liver CPD; 10/20 of those who were neutral about or did not enjoy reporting the infrequent liver biopsies they received said they would like more time for liver CPD. Five of 12 specific comments related to the lack of available courses.

Comments

It is likely that many of the respondents to this questionnaire are drawn from liver enthusiasts. About 40% work in a centre with hepatologists, are involved with specialist reporting of more than 100 liver biopsies per year and discuss liver biopsies in formal MDT meetings. The other 60% of replies were from hospitals where liver patients are managed by gastroenterologists, and pathologists thus receive fewer liver biopsies. In these situations, most enjoy, read about and discuss cases with colleagues and clinicians and refer difficult cases.

The developmental needs suggested by our questionnaire are for greater availability of liver CPD, and specialist liver attachments for trainees. Referral pathways exist informally at present, but may be threatened by other pressures unless more formally recognised. Some pathologists feel they have insufficient experience and/or interest to report liver biopsies adequately. Their departments should ensure local support or make formal external referral arrangements in order that the clinical risk of biopsy is justified by the value of the reports.

Clearly, liver biopsy is hazardous and the potential clinical benefits for diagnosis and management must justify the procedure.³ For their part, pathologists have to understand the clinical questions behind the biopsy and the potential clinical impact of conclusions drawn in the report. This requires some understanding of clinical hepatology and related investigations, as well as familiarity with the main histological patterns of liver injury. Liver biopsy reporting should not be expected from pathologists with insufficient time or inclination for this work, or without a referral pathway for challenging cases. Training programmes in histopathology should include a specialty attachment in liver pathology with enough concentrated experience to gain confidence in dealing with common diagnoses.

The 'Liver Pages'² (where the results of this questionnaire are presented in full) are intended as a focal point for liver CPD in the UK. They were developed initially to capture the educational value of cases circulated as part of the National Liver Pathology EQA Scheme, but have subsequently been expanded to include information about CPD events, Professor Peter Scheuer's seminars on liver pathology, links to dataset documents, etc. Since 2005, there has been an annual update meeting for specialist liver pathologists, and this year there will be two days of hepatopathology in the College's Education Centre in December (see the Symposia pages in this *Bulletin*), including a one-day course designed to meet the needs of the 'generalist' who wants to be confident reporting liver biopsies.

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