Mr X presented with ascites and was found to have malignant cells in the peritoneal fluid. An ultrasound scan revealed multiple peritoneal and liver nodules. A biopsy of one of these nodules revealed an adenocarcinoma. A primary site could not be discerned. On further assessment of the patient it was found that he had undergone laparoscopic cholecystectomy in the private sector one year ago. He had not collected the histopathology report nor visited his surgeon for a follow up since he felt “well”. When the histopathology report was finally retrieved, the diagnosis was that of an adenocarcinoma of the gall bladder.

The above incident prompted us to carry out an audit of all histopathology and cytopathology reports that were not collected by the patients both in the private sector and government sector in regard to its impact on the morbidity and mortality and the requirement of further treatment.

Hence the histopathology and cytopathology reports that were not collected from two private sector hospitals and the four medical units at a teaching hospital in Sri Lanka during the period 2011 – 2012 were categorized as follows.

Category I included benign conditions such as lipomas, sebaceous cysts and normal endoscopic biopsies and normal cytology which required no further treatment or follow up measures. Category 2 included benign conditions requiring follow up with investigations and treatment measures such as chronic gastritis, inflammatory bowel disease, chronic hepatitis, granulomatous inflammation and cytology reports such as autoimmune thyroiditis. Category 3 included biopsies, resection specimens and cytology samples of malignant conditions. The distinction amongst various specimen types was not made. The reports that were included were those that had been duly signed out at least three months ago.

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Results

There was a total of 5364 reports issued by the government sector medical units and 14,385 reports issued by the two private sector hospitals during the period of study. Of these 2000 reports (37.2%) (1524 histopathology and 476 cytopathology reports) from the government sector medical units and 1265 (8.8%) (957 histopathology and 308 cytopathology reports) from the two private sector hospitals had not been collected. Categorization of the reports that were not collected by the patients are given in Table 1.

Table 1. Categorization of the reports that were not collected by the patients

<table>
<thead>
<tr>
<th></th>
<th>Government Sector (n=2000)</th>
<th>Private Sector ( n=1265)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Category 1</td>
<td>Category 2</td>
</tr>
<tr>
<td></td>
<td>Benign</td>
<td>Benign</td>
</tr>
<tr>
<td></td>
<td>with no need for follow up</td>
<td>requiring follow up</td>
</tr>
<tr>
<td>Histopathology</td>
<td>1279</td>
<td>180</td>
</tr>
<tr>
<td>reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cytopathology</td>
<td>400</td>
<td>67</td>
</tr>
<tr>
<td>reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1679</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>(84%)</td>
<td>(12.4%)</td>
</tr>
</tbody>
</table>

Discussion

Any tissue that is removed from the body during a surgical procedure should ideally be examined histologically as the pathology report provides not only a diagnosis but also an indication of the follow up measures required. Therefore, even in most benign conditions, it is important for the patient to collect the pathology report and seek advice from the clinician. This is amply demonstrated in a case study reported by the Accident Compensation Corporation (ACC) in July 2009, where timely follow up of the histopathology report would have prevented a late diagnosis and morbidity in the patient (1).
The World Alliance for Patient Safety points out that failure to follow-up test results is one of the major processes contributing to unsafe patient care (2). A number of studies have been carried out in the west in regard to the frequency of pending laboratory test results and their adverse effects on the patient management (3,4).

Kelly and Barber studied the communication of test results to 155 patients in an urban practice. A total of 186 investigations were performed of which 68 were not communicated to these patients (5). Only 95 (61%) patients knew their test results. Another study indicated that only 51% of patients received appropriate care in life threatening conditions until a computerized laboratory system was introduced (6).

There may be many reasons for the results of this audit reflecting non-collection of reports by patients. These reasons include the possible death of the patient, receipt of the report by other means such as via telephone, email or facsimile, lack of interest or more importantly the lack of understanding of the importance of collection of the report by the patient. Though the first two reasons are quite possible this would account only for a small number of uncollected reports.

The larger number of reports that were not collected in the government sector is a cause for concern and possibly illustrates the difference in the outlook of the two groups of patients attending these two sectors. In contrast to the patients attending the government sector hospitals, most patients attending the private sector hospitals are of a higher socio economic standing and therefore are aware of the importance of the histopathology report and its follow up. In addition, the patients attending the private sector hospitals may have been given more precise instructions regarding follow up.

In developed countries test results are communicated by mail, telephone or e-mail (7,8,9). In Sri Lanka, in some of the government sector medical units and in the private sector hospitals, clinicians obtain the reports and inform patients of the need for follow up and treatment especially in the case of malignancies. There is however no clear cut policy or uniform system in operation at present in Sri Lanka and the collection of results and its follow up is thought to be largely the responsibility of the patient.

A study of American house staff at a large teaching hospital revealed that the barriers to timely follow up of test results included a lack of a reminder system (40%), difficulty in accessing results (24%), too many competing demands on time (27%) and uncertainty on who should follow up on the results (16%) (10).
The responsibility for the follow up of a test (including histopathology and cytopathology reports) lies with the clinician who requested the test. In many other countries the general practitioners provide a safety net to ensure the follow up of abnormal results but are not held responsible for undertaking the clinical management of the problem or the responsibility of acting on the abnormal results (11).

In Sri Lanka, the most significant problem is that the people do not appreciate the importance of a histopathology report and its bearing on the future management of the patient. Most often the patient does not attend follow up visits and forgets to collect the report as the patient “feels better”. This is a problem that can be overcome by educating the patients. The importance of reviewing the histopathology reports should be emphasized to the patient at the very outset, preferably prior to or at the time of surgery or on discharge of the patient. It is also important to educate the patient on the need of keeping such reports carefully and meticulously filed for future reference as the management of certain conditions often need review of previous histology and cytology reports. Conducting programmes to increase the awareness of these facts among the public through different media may be another option the College of Pathologists could adopt.

Introduction of a colour coding system according to different categories as devised in this audit and informing the patient of the level of urgency may also be another measure that could be introduced at a National level by the College of Pathologists of Sri Lanka.

In summary, whilst institutions and national bodies need to put in place systems to overcome the possibility of missed histopathology and cytopathology reports, there is a definite need to formulate a standard operating procedure (SOP) regarding such reports so that a better follow up and care of the patients can be instituted.

References


