Angiomyofibroblastoma of the vagina

Angiomyofibroblastoma is a rare, recently described, soft tissue tumour that occurs mainly, but not exclusively, in the vulval region of premenopausal women. We report a case arising in the vagina to draw the attention of pathologists to the fact that this rare neoplasm can occur outside the vulva.

A 54 year old woman, para 4 + 0, presented with a two year history of vaginal wall prolapse. Vaginal examination revealed a polypoid lesion on the anterior wall. Surgical removal and vaginal wall repair was performed.

The surgical specimen consisted of surface mucosa with an underlying well circumscribed, firm, homogenous, white coloured lesion measuring 2.5 cm in maximum diameter. Histology showed unremarkable surface squamous epithelium. Deep to this, a well circumscribed but unencapsulated lesion was present. This contained numerous randomly distributed blood vessels, most of which were thin walled and capillary-like (fig 1A), whereas others had thick muscular walls. The surrounding stroma contained spindle shaped cells, some with wavy nuclei (fig 1B), and others with a plasmacytoid or epithelioid appearance. Occasional multinucleate cells were present (fig 1B). There was little or no nuclear pleomorphism and mitotic figures were not identified. In some areas there was a tendency for concentration of the stromal cells around blood vessels, although this was not a prominent feature. The stroma contained collagen fibres and was focally oedematous with some extravasation of red blood cells. Immunohistochemical staining showed diffuse positivity for smooth muscle actin, vimentin (Dako, Copenhagen, Denmark). There was focal strong staining for desmin (Dako) and occasional cells were weakly positive for α smooth muscle actin (Sigma, Poole, Dorset, UK). There was no staining of stromal cells for S100 protein (Diagnostic Products Ltd, Abingdon, UK), AE1/AE3 (Dako), CD34 (Serotec, Oxford, UK), or factor VIII related antigen (Sigma, Ontario, Canada). Staining for α smooth muscle actin, CD34, and factor VIII highlighted the vascular channels. There was diffuse strong positivity of stromal cells for the oestrogen receptor (ER) (Dako) and progesterone receptor (PR) (Dako).

Within the vulva the chief differential diagnosis of angiomyofibroblastoma is likely to be a leiomyoma with prominent vascularity or an angiomyoma. However, diffuse immunoreactivity with anti-desmin antibodies would be expected in both these lesions, rather than the focal positivity seen in our present case.

The immunophenotype of angiomyofibroblastoma is distinct but most cases are desmin positive and α smooth muscle actin negative. However, some are negative for desmin or positive for α smooth muscle actin. In this case, there was focal strong immunoreactivity for desmin, with only occasional cells staining with anti-α smooth muscle actin. Diffuse positivity for ER and PR was present and this has been described previously in vulval angiomyofibroblastoma. However, the prevalence of these receptors normally in the subepithelial stromal cells of the vulva and vagina. It is probable that angiomyofibroblastoma in this region is derived from mesenchymal cells in the subepithelial myoid stromal zone, which extends from the endocervix to the vagina. However, in a recent report this lesion has also been described in the fallopian tube.

A comparison of international normalised ratio (INR) measurement in hospital and general practice settings: evidence for lack of standardisation

Previous reports of discrepancies in international normalised ratio (INR) measurement between centres have focused on hospital based methodology.2 Previous studies have demonstrated differences in derived INR values for the same sample tested in different laboratories.3 We have demonstrated differences in derived INR values for the same sample tested in different laboratories.3

Venous blood was drawn from patients in one primary care centre over a three month period. The sample was tested on site for INR evaluation using the thrombotrak NPT and Thrombotest reagent. The main indication for this study was an extension of the previous one, investigating comparative results based on contemporaneous samples measured in one primary care centre and in two hospital laboratories using a variety of techniques.


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References


Figure 1 (A) Numerous capillary-like vascular channels are present within the neoplasm. (B) The stroma contains spindle shaped cells with occasional multinucleate cells.
method of INR testing, the result obtained was taken as the gold standard. Samples were sent to the laboratory using routine transport with no samples tested more than 12 hours after venesection.

Fifty four separate venous samples from 26 patients were sent from the practice to the laboratory. The INR values obtained from the practice varied from 1.0 to 6.1. Table 1 shows the mean difference in results from the various laboratories. There was a significant mean difference in the practice INR results compared to the Laboratories 1 and 2 in both laboratories, but none between practice measurements and those obtained in laboratory 1 using the same technology. There were also significant differences between all hospital systems. Furthermore, there was a significant difference between LAB 1 and KC-10 results from the same laboratory and between KC10 results from different laboratories.

Our results suggest that regular differences occur in INR measurements obtained on the same samples using different methodologies and draws attention to inherent problems associated with INR measurement in different settings. The clinical implication of these findings is that patients could receive different doses of warfarin depending upon which centre monitors their INR. Nevertheless, the best agreement to be found was between the practice derived INR and the laboratory derived INR using the same technology. This shows that primary care INR estimations are as reliable as laboratory estimations using the same combination of reagents and technology. Therefore, it follows that as long as continuity of INR estimation by location and method is maintained for individual patients, the use of an unnecessary warfarin dose adjustment is reduced.

Table 1 Mean difference (SEM) in INR between methods (n = 54)

|            | ACL Lab 1 | KC-10 Lab 1 | KC10 Lab 2 | Thrombrotar
|------------|-----------|-------------|------------|---------------
| ACL Lab 1  | 0.25 (0.04)** | 0.50 (0.05)** | 0.35 (0.06)** | -0.06 (0.04) |
| KC-10 Lab 1| 0.24 (0.03)** | 0.11 (0.05)* | -0.13 (0.06)* | -0.55 (0.07)**|
| KC-10 Lab 2| -0.13 (0.06)* | -0.55 (0.07)** | -0.42 (0.07)** |               |

*, p < 0.05; **, p < 0.001.

Book reviews


At 56 chapters written by 93 authors and extending to 2445 pages, this is the third edition of Sternberg’s Diagnostic Surgical Pathology and a heavy weight re-entry into the mighty territory embracing histopathology tome market. The preface by the editor and his four associate promises us “the latest on PMET’s”. I am not quite sure what PMET’s are. Perhaps they are secondary deposits from PNET’s! Typographical errors aside, on a more positive note, the promise of a revised lymphoma classification, an update on gut lymphomas and those of the skin, a reclassification of papillary urothelial neoplasms, the introduction of new aspects of kidney tumours, modernisation of the approach to gastrointestinal stromal tumours, new concepts in ductal carcinoma in situ of the breast and handling of breast specimens, and an update of chapters on urothelial and paediatric neoplasms is well met. There is substantial new information in this edition. The references appear to cut out in late 1998 which, given the complexity of editing a work of this magnitude, probably represents the most up to date information that can be expected. Although the sections on new diagnostic techniques such as molecular biology have been expanded, the work remains grounded in diagnostic histopathology. The general background to each disease process is well described and the clinicopathological correlations are dealt with; this book is well placed to inform multidisciplinary care.

The transition to almost all full colour illustrations is heralded as a major advance to this edition. Although many of the pictures are of good quality and many do add information that could not be obtained from a monochrome image, the quality of the colour reproduction does vary enormously between the chapters. For example, that by R H Hefner on muscle biopsy in neuromuscular disease has excellent illustrations, whereas that by A M Hanby and two other authors on the breast has particularly poor ones, with some of the worst examples of colour casts and low contrast in any current professional textbook. I do not think that the editors should have let this through. The scope of the textbook is very wide and the depth of knowledge and discussion achieved is commendable, but again this is a point that varies from chapter to chapter, suggesting some editorial inconsistency.

More fundamental questions are: What is the purpose of giant multiauthor texts like this, who needs them, when will they be used and how, and if they are required, what is the “pecking order” for choice of these? Very often better written, more detailed, and more up to date descriptions exist in specific texts. The constraints of producing a multi author work like this mean that the individual chapters are unlikely to rival the detail of the specialised book. However, I suspect most of us consult books like this on the areas in which we do not have specialised texts. Apart from this text, this market segment appears to include Ackerman’s Surgical Pathology edited by Rosai, Anderson’s Surgical Pathology edited by Damjanov and Linder, and Silverberg’s Principles and Practice of Surgical Pathology. Perhaps the Oxford Textbook of Pathology is not a direct competitor because its remit is so different. The choice of which of these books to consult is a personal matter, depending on preferred style and balance of writing. In my view, Ackerman is particularly commendable for Rosai’s masterful treatment of diagnosis in surgical pathology, Silverberg is brief and to the point, yet quite detailed, and Anderson’s Pathology is good for clinicopathological correlations and the general context of disease. This text lies somewhere in the middle, meeting several of the purposes, but to my mind it is beaten for quality of histological description by the first two works, although still very worthwhile if funds allow its purchase.

T J STEPHENSON


The Atlas of Immunology aims to be “the most up to date and thoroughly illustrated treatise available”. Sadly the book does not achieve what it sets out to do. Many of the images by their nature attempt to illustrate clinical or clinical laboratory situations and, particularly for these, the highest quality of image is required to enable the differentiation from other often subtly different conditions. Many clinical images are given simply as line drawings—for example, a malar rash in systemic lupus erythematosus, the hands in systemic sclerosis, or a baby with an intra-venous line (the image for sepsis combined with immuno-deficiency). A dermatology text would not accept line drawings of a malar rash and why should immunologists? It is as if a team of journalists have collected as many images as possible regardless of quality, content, or currency. All are printed in black and white, and the reproduction is often poor. No explanation is given to any figure, either in the text, or in the legends, which are all simple statements such as “release of sequestered antigen”. For images such as indirect immuno-fluorescence of salivary gland duct showing the staining pattern of anti-salivary gland antibodies labelled simply as “Sjögren’s syndrome” this is especially uninformative. Even the accompanying text is now largely outdated.

This ambitious project was an opportunity for two distinguished authors to provide the reader with access to a lifetime’s collection of images as possible regardless of quality, content, or currency. All are printed in black and white, and the reproduction is often poor. No explanation is given to any figure, either in the text, or in the legends, which are all simple statements such as “release of sequestered antigen”. For images such as indirect immuno-fluorescence of salivary gland duct showing the staining pattern of anti-salivary gland antibodies labelled simply as “Sjögren’s syndrome” this is especially uninformative. Even the accompanying text is now largely outdated.

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use colour, and preferably would be on CD-ROM and have internet links to images so that they could be incorporated into teaching material. This opportunity has been missed.

W A C SEWELL


With the dramatic fall in professors of medical microbiology, together with the recommended reduction in didactic teaching of medical students, the requirement for a readable and affordable textbook assumes even more importance. Although the would be doctors of tomorrow do not necessarily see it like that—plenty of money for the pleasures of life, but none for books. David Shanson's Microbiology in Clinical Practice has been a recommended text for medical students throughout the UK since its launch in 1982. So what has changed since the first edition?

New diseases and new pathogens have emerged such as Helicobacter pylori; hepatitis C, E, and G; Escherichia coli 0157; Bartonella; Chlamydia pneumoniae; and variant CJD—to name but a few. In addition to the new, we welcome back the old: diphtheria and tuberculosis. The ever ingenious bacteria appear to have the upper hand against the pharmacologist, chemist, and the global epidemic of AIDS marches ever onwards, ever confident into this new millennium. In an attempt to aid the would-be Alexander Flemings of the future to climb out of their Petri dishes and discard the loop, an additional chapter entitled “Applications of molecular biology to clinical microbiology and infectious diseases” has been added. This highly readable textbook is recommended to medical students, MLSOs, infection control nurses, and general practitioners alike. Value for money at £29.99—all for the price of a few beers!

R C SPENCER


This is the fourth edition of this excellent book, which has stood on the shelves of most microbiology laboratories in the UK. In the 16 years since the first edition it has grown from 13 to 19 chapters to take account of recent developments in infections and agents such as new variant CJD, risk assessment, and European regulations and recommendations. The book is full of practical advice on avoiding laboratory hazards, such as aerosol generation and sharps injury, as relevant now as in 1982. For those who prefer disposable equipment and test formats it also provides a fascinating list of published reports of laboratory-acquired infections and is the standard UK reference source for these.

The strength of this book lies in its detailed coverage of all aspects of laboratory practice and management, which is backed up by reference to appropriate health and safety regulations or guidelines. For example, there is an excellent comprehensive chapter on safety cabinets and a helpful section on transport of isolates and samples, although the latter does not discuss the recent UK post office changes. Some of the references are a little out of date, such as 1982 for a text on bacterial pathogenesis, and there are occasional errors, but the overall quality of the book is as high as ever.

Everyone working in a laboratory setting should have to read this book, especially those with little experience of working with viable organisms or clinical samples, such as those taking up genetic manipulation work. It remains thoroughly recommended.

C KIBBLER


In the past decade, proton pump inhibitors have dramatically changed the treatment of acid related disorders. They profoundly suppress gastric acid, without the development of tolerance or side effects, and are very commonly used. As such, this book edited by Dr Olle is of interest to clinicians, physiologists, and pharmacists. The book is written by experts in the field and largely consists of two sections on pharmacology and clinical effects. The first section covers among others the mechanism of action and the consequences of acid inhibition in animals and humans. The second section focuses on the use of proton pump inhibitors for ulcer disease, Zollinger-Ellison syndrome, and gastro-esophageal reflux disease. Thus, the book deals with many topics. Unfortunately, the subject index is limited, which hampers its use as a quick reference. Furthermore, several currently relevant issues are not, or only briefly, discussed. These include the new formulation of omeprazole in a multiple pellet solution, the use of intravenous formulations for upper gastrointestinal bleeding, the possibility of nocturnal acid breakthrough and fundic gland polyp formation during treatment, as well as that of rebound hypersecretion after the withdrawal of treatment. Finally, the topic of Helicobacter pylori and atrophic gastritis is discussed repeatedly, but only some of the arguments mentioned in the international literature are brought forward. Therefore, a second edition of the book would benefit from such updating for clinicians who are interested in the newest aspects of proton pump inhibitor treatment.

E J KUIPERS

Calendar of events

Full details of events to be included should be sent to Maggie Butler, Technical Editor JCP, The Cedars, 36 Queen Street, Castle Hedingham, Essex CO9 3HA, UK; email: maggiebutler@pilotree.prestel.co.uk

Applications and Technologies in Veterinary Pathology
5 October 2000, Royal College of Pathologists, London, UK
Further details: Maureen Russell, Scientific Meetings Officer, Royal College of Pathologists, 2 Carlton House Terrace, London SW1Y 5AF, UK; (Tel +44 (0)20 7451 6740; email www.rcpath.org)

New Millennium Bugs
18 October 2000, Royal College of Pathologists, London, UK
Further details: Maureen Russell, Scientific Meetings Officer, Royal College of Pathologists, 2 Carlton House Terrace, London SW1Y 5AF, UK. (Tel +44 (0)20 7451 6740; email www.rcpath.org)

Practical Adult Cardiovascular Pathology Course
6–8 November 2000, Royal Brompton Hospital, Imperial School of Medicine, National Heart and Lung Institute
Further details: Short Course Office, National Heart and Lung Institute, Dovehouse Street, London SW3 6LY, UK. (Tel +44 (0)20 7351 8246; email shortcourse.NHLI@IC.AC.UK)

Practice Guidelines for Non-Hodgkin's Lymphoma
21–22 November 2000, Royal College of Pathologists, London, UK
Further details: Maureen Russell, Scientific Meetings Officer, Royal College of Pathologists, 2 Carlton House Terrace, London SW1Y 5AF, UK. (Tel +44 (0)20 7451 6740; email www.rcpath.org)

Cytopathology Update: Making Cervical Cytopathology Work
7 December 2000, Royal College of Pathologists, London, UK
Further details: Maureen Russell, Scientific Meetings Officer, Royal College of Pathologists, 2 Carlton House Terrace, London SW1Y 5AF, UK. (Tel +44 (0)20 7451 6740; email www.rcpath.org)

Diagnostic Gynaecological Pathology
13–15 January 2001, The Embassy Suites, Palm Desert, California, USA
Further details: Department of Continuing Education, Harvard Medical School, 25 Shattuck Street, Boston, MA 02115, USA. (Tel +1 617 432 1525; fax +1 617 432 1562; email hms-cme@hms.harvard.edu)

Urological Surgical Pathology for the Practising Pathologist
24–26 March 2001, Sanibel Harbour Resort and Spa, Fort Myers, Florida, USA
Further details: Department of Continuing Education, Harvard Medical School, 25 Shattuck Street, Boston, MA 02115, USA. (Tel +1 617 432 1525; fax +1 617 432 1562; email hms-cme@hms.harvard.edu)

6th European Forum on Quality Improvement in Health Care
29–31 March 2001, Bologna, Italy
Further details: BMA/BMJ Conference Unit, BMA House, Tavistock Square, London WC1H 9JR, UK. (Tel +44 (0)20 7383 6409; fax +44 (0)20 7383 6869; email Quality@bma.org.uk; website www.quality.bmj.org)
Best Practice articles (formerly “Broadsheets”) prepared by the Association of Clinical Pathologists

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159 Examination of large intestine resection specimens 2000 SH BURROUGHS, GT WILLIAMS
158 Neuropathology 2000 WR TIMPERLEY
157 Guidelines for the laboratory handling of laryngectomy specimens 2000 TR HELLIWELL
156 Handling oesophageal biopsies and resection specimens and their reporting 2000 NBN IBRAHIM

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154 Helicobacter pylori 1999 CAM MCNULTY, JI WYATT (with correction in June issue)

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Authors $2.25. Prices include postage but air mail will be charged extra. Trade discount 10%. All orders (and all changes of address of regular subscribers) should be sent to the Publishing Manager, Journal of Clinical Pathology, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR.