EBV-reactivation and Post-transplant Lymphoproliferative Disorder Treated with Rituximab

We read the recent paper on profile of EBV-associated infectious mononucleosis (IM) by Balasubramanian, *et al*. [1] with interest. They concluded that EBV associated IM is more common in preschool children. Here we highlight another dreaded complication due to reactivation of EBV post-allogeneic stem cell transplant (SCT) leading to post-transplant lymphoproliferative disorder (PTLD). Mortality rates due to PTLD are reported to be as high as 50–90% [2]. Various therapeutic approaches are suggested for EBV-associated PTLD including anti-B-cell treatments such as rituximab (Anti-CD20 monoclonal antibody) [3]. Rituximab alone or combined with low-dose chemotherapy is an effective therapy for EBV-associated PTLD [4,5]. We describe here successful treatment of EBV induced PTLD with rituximab in an infant post-allogeneic SCT.

An 11-month-old girl was referred to our centre for matched sibling allogeneic SCT. She was diagnosed as a case of familial hemophagocytic lymphohistiocytosis (HLH) at the age of three months and treated as per HLH-2004 protocol. Her elder brother was complete 6/6 match with her on HLA typing. She received reduced intensity conditioning regimen and her doner stem cells (CD34 positive cells) were infused. GVHD prophylaxis consisted of cyclosporine and methotrexate. She had neutrophil and platelets engraftment on Day +22 and +26, respectively. FISH studies performed on day +30 showed 97% XY (donor) cells and 3% XX (recipient) cells.

On day +45, she developed high grade fever and neck swelling with difficulty in swallowing. Bilateral tonsils were enlarged. Hepatosplenomegaly was also noted. A possibility of PTLD due to EBV was considered. Her EBV DNA copy numbers were raised to 72700. She was started on injection rituximab 375 mg/m^2 IV weekly × 4 doses. Her fever disappeared 48 hours later and tonsils gradually became normal size by day +52. Her repeat EBV DNA copy numbers were 1900 after 3 weeks. She was discharged on day +81 post-transplant and is doing well till date (18 months post-transplant). Early detection of EBV induced PTLD and aggressive treatment with Rituximab is a key to survival in patients who have undergone allogeneic SCT.

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Psoas Abscess: Primary or Secondary?

It is important to explain the classification of primary and secondary iliopsoas abscess, with regard to a recent article by Mondal, *et al*. [1].

Iliopsoas abscess may be classified into primary or secondary according to the pathogenesis [2,3]. In 1992, Gruenwald, *et al*. [4] proposed a new classification of iliopsoas abscess according the organism, therefore those due to *Staphylococcus aureus* should be classified as primary and those that were not caused by this bacterium as secondary. This hypothesis was refuted because many iliopsoas abscesses secondary to spondylodiscitis were caused by *Staphylococcus aureus*. From then until today, the classification of iliopsoas abscess is based on the form of spread of infection. Therefore, primary abscesses are due to a bacteremia distant to iliopsoas muscle and secondary iliopsoas abscess occurs as a result of direct spread of infection to the iliopsoas muscle by contiguity from an adjacent structure [2,3], such as the case presented by Mondal, *et al*. [1]

Recent studies place special emphasis on understanding the characteristics of primary and secondary abscesses, and it is particularly important that

all authors use the same classification criteria to describe this disease [3]. So the case presented by the authors should be classified as an iliopsoas abscess secondary to spondylodiscitis due to *Staphylococcus aureus*.

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Workplace Based Assessments: A Complement to the Quarter Model

After reading the article titled, "The Quarter Model: a proposed approach for in-training assessment of undergraduate students in Indian medical schools" [1], I would like to add the element of workplace based assessments (WBAs) as a complement to this model.

It is beyond doubt that the traditional way of assessing successful postgraduate pediatrics training is no more considered a valid process in many institutes in India [2,3]. Having done a postgraduate degree in pediatrics myself from a prestigious institute in India, I personally feel there is desperate need for a more robust, comprehensive and standard way of assessment. I am finishing my training in United Kingdom now, where the assessment process fulfils many of the criteria you have outlined in your article. I couldn't agree more that the assessments should be multi-sourced *i.e.* from different members of the team with appropriate weightage given to each assessor.

Although the concept of the quarter model is fantastic, it lacks the objective component at many levels. This is why, I would like to introduce the concept of Workplace based assessments (WBAs) which could be used in addition to the model proposed by you. These are a set of tools which can be combined with trainees daily activities and heavily rely on constructive feedback in a more objective manner. According to Royal College of Paediatrics and Child Health [4], "WBAs connect teaching, learning and assessment in the teaching cycle. They provide formative feedback in a constructive environment to help trainees develop and progress through their training programme by helping them set their development plan and take ownership of their learning objectives giving the resources to improve self-evaluation, self-assessment, reflection and goal setting skills. Workplace based assessments are designed to show progress, so should be used to reveal areas that need to be worked on, so should be spread throughout the year and through all posts."

Each trainee will have an online account with a service called ASSET (www.asset.rcpch.ac.uk) and assessments must be completed online using this facility. Trainees can view their completed online assessments and trainers are able to see the progress of their trainees online. Presently, the following WBAs are being used in the UK based on national curriculum.

1. Pediatric Mini Clinical Evaluation Exercise (ePaed Mini-CeX)
2. Pediatric Case Based Discussion (ePaedCbD)
3. Directly Observed Procedural Skills (DOPS)
4. Sheffield Assessment Instrument for Letters (SAIL)
5. Pediatric Multisource Feedback (ePaedMSF)

A certain number of satisfactory WBAs in each category need to be completed each year. These, along with other training issues, are reviewed at the end of each year by an independent panel in the presence of trainee. This process makes sure that training needs are identified mutually and an action plan is set. In addition to this, trainees will formally meet their educational supervisors on a quarterly basis to discuss the progress and any other issues.

I would like to add here that this process is complemented by formal exams and regular appraisals. I propose that this method can be combined with the quarter model to be used as an objective assessment although will need to be modified based on the present requirements in India.

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