

FASH EXAM – a new protocol in Sub-Saharan African: Article Review  
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The limitation of medical supplies in Sub-Saharan Africa has pushed physicians to explore creative ways to make diagnostic decisions and create patient care plans based on a collection of clinical information. One example I recently came upon was the FASH Exam = Focused Assessment using ultrasound for HIV associated Tuberculosis. Ultrasound has become the hallmark of resource-scarce medical practices e.g. in Africa where infectious diseases such as HIV, malaria, diarrheal illness, etc remain a prevalent threat to the community. The article formulates a protocol that can be translated to physicians with limited experience on how to use ultrasound to diagnose extra-pulmonary TB. This protocol is specific for areas where HIV and TB co-infection occur frequently i.e. Sub Saharan Africa

It encompasses 6 probe positions similar to the FAST exam except that the thoracic window is evaluated in the lower bases to look for signs of an effusion.

The first probe position evaluates the pericardial silhouette for signs of an effusion. One study illustrated a significant decrease in survival by 6 months in patients with a pericardial effusion on exam. The most common cause in US studies have shown to be malignancy, however it is consistent that the presence of an effusion is indicative of increased mortality in this population. The hepatorenal and splenorenal window are used to discern free fluid as well as cavitory hepatic and splenic lesions common in tropical communities and can then be aspirated under ultrasound guidance. Cavitory lesions are often suggestive of hepatic abscess in which amebic infection is more common but is also seen in TB.

The presence of pleural effusion was highly suggestive of TB especially if unilateral. However a literature search suggests that the most common cause of pleural effusion more so bilaterally was Kaposi's sarcoma with limitations of this study being patients within the US. Another study regarding a similar population supported the presence of a pleural effusion in over 20% of the HIV population with the most common type being parapneumonic and secondary to bacterial pneumonia. Surprisingly the most common cause was NOT PCP pneumonia but rather the most common bacterial causes similar to those found in the US (Strep, H. influenzae, and Pseudomonas).

The limitations of the protocol are the sensitivity and specificity of the protocol to discern EPTB, however there is no question of the gains from the information in finding clinical manifestations not limited to TB but also lymphomas, HIV-induced nephrotic syndrome, or pericardial disease.

References / Further Reading

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