**14. ABSTRACT**

Surgical Pathology Bootcamp: A Military Experience  
Nathaniel Smith, Ryan Collins, and Jordan Hall  
The views expressed are those of the authors and do not reflect the official views or policy of the Department of Defense or its Components.  

**Background**  
A common complaint among pathology department faculty is the variable medical knowledge and histological experience of incoming residents. While multifactorial, deficiencies are likely attributable to a lack of pathology emphasis during clinical years of medical school and the move towards more organ system-based modalities of learning. Methods of accelerating the transition from medical student to pathology resident are crucial but thus far non-standardized. Here, we describe the results of a 4-week surgical pathology “bootcamp” experience in the largest military pathology residency program in the US.

**15. SUBJECT TERMS**

USCAP 2018, Vancouver, British Columbia, Canada, March 17-23, 2018
Surgical Pathology Bootcamp: A Military Experience

Nathaniel Smith, Ryan Collins, and Jordan Hall

The views expressed are those of the authors and do not reflect the official views or policy of the Department of Defense or its Components.

Background

A common complaint among pathology department faculty is the variable medical knowledge and histological experience of incoming residents. While multifactorial, deficiencies are likely attributable to a lack of pathology emphasis during clinical years of medical school and the move towards more organ system-based modalities of learning. Methods of accelerating the transition from medical student to pathology resident are crucial but thus far non-standardized. Here, we describe the results of a 4-week surgical pathology "bootcamp" experience in the largest military pathology residency program in the US.

Design

Six pathology interns were assigned to two teams of three persons. A 20-item glass slide and medical knowledge exam and 33-item self-assessment of baseline grossing/microscopic skills were administered on the first day. The self-assessment was scored on a scale from 1 to 5 utilizing well-defined criteria. Each team alternated between grossing and signout the following day without preview. The daily grossing and frozen section workload (~150 cases) was split evenly among the team members. Continuous direct teaching of grossing and frozen section dissection was provided by upper level residents, staff, and pathologist assistants. A daily organ-based microscopic didactic was given by an upper level resident and a daily gross conference of interesting cases from the previous day was led by interns. A 58-item slide and written post-assessment, 33-item skills self-assessment, and frozen section skills practical was administered on the final day.

Results

The average scores on the written and slide pre-assessment was 36.0±16.2%(SD) which increased to 80.0±12.6%(SD) on the post-assessment (p<0.05). The average slide practical score was 32±12.0%(SD) which increased to 74.0±16.2%(SD) after bootcamp (p<0.05). The average score on additional glass slides based on lecture material was 81.4±10.9%(SD). Individual self-assessment scores increased throughout all grossing and microscopic skills measures (Figures 1 and 2). The frozen section skills assessment was completed with an average time of 11.5 minutes.

Conclusion

The interns showed marked improvement of baseline knowledge, practical skills, and diagnostic acumen after completion of bootcamp. A combination of high expectations and intensity of a 4-week long surgical pathology rotation specifically tailored to incoming interns was successful in transitioning medical students to surgical pathology residents within a relatively short time.
Average Self-Assessment Score of Grossing/Frozen Section Skills Before and After Bootcamp (95% Confidence Intervals)

Figure 1
Figure 2

Average Self-Assessment Score of Microscopic Skills Before and After Bootcamp (95% Confidence Intervals)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:</td>
<td>&quot;No knowledge&quot;</td>
</tr>
<tr>
<td>2:</td>
<td>&quot;Little or vague knowledge&quot;</td>
</tr>
<tr>
<td>3:</td>
<td>&quot;Comfortable with supervision&quot;</td>
</tr>
<tr>
<td>4:</td>
<td>&quot;Comfortable without supervision but with reference materials&quot;</td>
</tr>
<tr>
<td>5:</td>
<td>&quot;Fully competent without supervision or reference materials&quot;</td>
</tr>
</tbody>
</table>

- Before
- After

- Colon polyps
- Basal skin neoplasms
- Use of microscope
- Types of epithelium
- Determining phase of endometrial hyperplasia
- Identification of cervical dysplasia
- Basic kidney neoplasms
- Location in stomach
- Intestinal metaplasia
- Features of H. pylori infection in stomach
- Reactive gastropathy