RESIDENT ROUNDS: PART I

Program Spotlight: Georgia Health Sciences University

Christina Brennan MD, Jack L. Lesher Jr. MD, Loretta Davis MD
Georgia Health Sciences University, Augusta, GA

Resident Rounds is a section of the JDD dedicated to highlighting various dermatology departments with residency training programs. Resident Rounds includes three sections: (1) a program spotlight, highlighting pertinent information about the department and residency training program; (2) a section presenting study materials used by residents at the program; and (3) a section designed to highlight recent interesting cases seen at the institution. This issue of Resident Rounds features the Georgia Health Sciences University. The editor of Resident Rounds is Omar A. Ibrahimi MD PhD. He is currently the Director of Cutaneous Laser and Cosmetic Surgery and a Mohs surgeon at the University of Connecticut. Dr. Ibrahimi is also a Visiting Scientist at the Wellman Center for Photomedicine at Massachusetts General Hospital/Harvard Medical School. If you are interested in highlighting your training program in a future issue, please contact Dr. Ibrahimi at Obrahimijddonline.com.

The Section of Dermatology at the Medical College of Georgia (MCG), Georgia Health Sciences University (GHSU) in Augusta, GA is one of only two cutaneous research and teaching programs in the state of Georgia. The Dermatology Training Program was established in 1967 with the first group of residents graduating in 1970. Since its inception, the program has graduated 154 residents. It is a three-year training program and currently offers 3 positions per year. Notably, the founder of the Department of Dermatology, Dr. Graham "Skee" Smith, also founded the Journal of the American Academy of Dermatology at MCG.

Medical student education is an important aspect of the program. Residents give monthly lectures to rotating medical students while playing an active role in teaching students in the clinics. Residents at this training program are exposed to a wide spectrum of medical and surgical dermatology through outpatient clinics and inpatient consults at GHSU hospital and the Charlie Norwood VA Medical Center. The program offers rotations in Mohs microlurgical surgery as well as experience with procedural dermatology, including Botox®, fillers and lasers. Dermatopathology is learned at bi-weekly group sessions as well as through individual monthly rotations. The residents participate in weekly educational conferences, including book review, morphology, basic science and kodochromes. They prepare monthly presentations for the Cutaneous Tumor Board (a joint meeting of cancer specialists on campus), the Lupus Conference (a joint meeting with Rheumatology and Nephrology), Journal Club, and Dermatology Grand Rounds.

The residency program is active in local, state, and national dermatologic societies. Locally, residents attend and present cases at the Augusta Dermatologic Society meetings. Annually, the GHSU and Emory residents are involved in a friendly competition, presenting cases at the Georgia Society of Dermatologists’ meeting while vying for the coveted Donald Abele award. Additionally, several residents present posters at the annual Southeastern Consortium for Dermatology meeting and cases at the American Academy of Dermatology meeting, particularly the Gross and Microscopic Symposium. This past year, one resident presented her ongoing psoriasis research in Wuhan, China.
Publications by faculty and residents are numerous and include publications in leading journals such as the Journal of the American Academy of Dermatology, the Archives of Dermatology, and the Journal of Drugs in Dermatology. The current group of residents has published over 35 manuscripts.

GHSU prepares its residents well for careers in academia or private practice, and many continue on to fellowship training. In fact, 18 graduates have pursued fellowships, including Procedural Dermatology, Dermatopathology, Pediatric Dermatology, and Photodermatology. This is a small program size-wise, but one steeped in history and tradition. The residents have great educational and training opportunities. Surrounded by southern charm, they train in a welcoming, family-oriented program that enables them to excel as top-notch dermatologists.

Disclosures
The authors have no relevant conflicts of interest to disclose.

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RESIDENT ROUNDS: PART II

Amyloidoses of Dermatologic Significance
Justin R. Sigmon MD
Georgia Health Sciences University, Augusta, GA

INTRODUCTION
FMF, Familial Mediterranean fever; TRAPS, TNF receptor-associated periodic syndrome; FAP, Familial amyloidotic polyneuropathy; FPLCA, Familial primary localized cutaneous amyloidosis; ACD, Amyloidosis cutis dyschronica

<table>
<thead>
<tr>
<th>Type</th>
<th>Amyloid Protein</th>
<th>Precursor Protein</th>
<th>Associations</th>
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<tbody>
<tr>
<td><strong>Systemic</strong></td>
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<tr>
<td>Primary systemic</td>
<td>AL or AH</td>
<td>Immunoglobulin light chain (AL) or rarely heavy chain (AH)</td>
<td>• Plasma cell dyscrasias, multiple myeloma</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Purpuric lesions (pinch purpura) and ecchymoses most common cutaneous finding</td>
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<td>• Glositis and macroglossia</td>
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<td>• Carpal tunnel syndrome</td>
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<td>• Prominent deltoids (shoulder pad sign)</td>
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<td>• Cardiac arrhythmias and right-sided heart failure</td>
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<td></td>
<td></td>
<td></td>
<td>• Poor prognosis</td>
</tr>
<tr>
<td>Secondary systemic</td>
<td>AA</td>
<td>Amyloid associated protein</td>
<td>• Chronic inflammatory disease or infection</td>
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<td></td>
<td></td>
<td>• Tuberculosis, leprosy, rheumatoid arthritis, inflammatory bowel, ankylosing spondylitis</td>
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<td></td>
<td></td>
<td>• No skin involvement usually</td>
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<tr>
<td></td>
<td></td>
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<td>• Often involves kidney, liver, adrenals, and spleen</td>
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<tr>
<td>Dialysis-associated</td>
<td>Aβ</td>
<td>β2 microglobulin</td>
<td>• Primarily affects synovium</td>
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<td>• Musculoskeletal symptoms</td>
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<td>• Rarely involves skin</td>
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<tr>
<td><strong>Primary Cutaneous</strong></td>
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<tr>
<td>Macular</td>
<td>Ak</td>
<td>Altered keratin</td>
<td>• Pruritic, brown, rippled macules</td>
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<td>• Often interscapular region of back</td>
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<td></td>
<td></td>
<td>• Notalgia paresthetica</td>
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<td>• Sipple syndrome or MEN type 2A</td>
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<tr>
<td>Lichen</td>
<td>Ak</td>
<td>Altered keratin</td>
<td>• Typically on shins</td>
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<td></td>
<td>• Brown pruritic lichenoid papules</td>
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<td></td>
<td>• Most common type of primary cutaneous amyloidosis</td>
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<td></td>
<td>• Sipple syndrome or multiple endocrine neoplasia (MEN) type 2A</td>
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<tr>
<td>Nodular</td>
<td>AL</td>
<td>Immunoglobulin light chains</td>
<td>• Asymptomatic, acral nodules</td>
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<td></td>
<td>• Sjogren syndrome, systemic sclerosis, and rheumatoid arthritis</td>
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<td></td>
<td>• Plasmacytomas</td>
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<td>• Progression to systemic amyloidosis (7%)</td>
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<tr>
<td><strong>Secondary Cutaneous</strong></td>
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<tr>
<td>Tumor-associated</td>
<td>Ak</td>
<td>Altered keratin</td>
<td>• Benign and malignant neoplasms</td>
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<td></td>
<td></td>
<td>• Non-melanoma skin cancers</td>
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<td></td>
<td></td>
<td>• Seborrheic keratoses</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Trichoepitheliomas</td>
</tr>
<tr>
<td>Other</td>
<td>Ak</td>
<td>Altered keratin</td>
<td>• PUVA therapy</td>
</tr>
</tbody>
</table>
### Amyloidoses of Dermatologic Significance Continued

<table>
<thead>
<tr>
<th>Type</th>
<th>Amyloid Protein</th>
<th>Precursor Protein</th>
<th>Associations</th>
</tr>
</thead>
</table>
| FMF    | AA             | Amyloid associated protein | - Autosomal recessive  
|        |                |                   | - Recurrent fevers and episodes of painful pleuritis, peritonitis, or synovitis  
|        |                |                   | - Arabs, Sephardic Jews, and Armenians  
|        |                |                   | - Erysipelas-like erythema of lower extremities  
|        |                |                   | - Mutations in pyrin  |
| Muckle-Wells | AA          | Amyloid associated protein | - Autosomal dominant  
|        |                |                   | - Familial urticaria  
|        |                |                   | - Periodic attacks of fever, lancinating limb pains, and urticaria-like eruptions  
|        |                |                   | - Progressive deafness  
|        |                |                   | - Mutations in cyropryn (C1AS1)  
|        |                |                   | - Allelic with familial cold urticaria and chronic infantile neurologic cutaneous and articular (CINCA) syndrome  |
| TRAPS  | AA             | Amyloid associated protein | - Autosomal dominant  
|        |                |                   | - Annular erythematous patches and edematous plaques on extremities  
|        |                |                   | - Peritonitis, pleuritis, and pericarditis  
|        |                |                   | - Periorbital edema and conjunctivitis  |
| FAP    | AApolAl        | Apolipoprotein Al  | - Autosomal dominant  
| ATTR   | Transthyretin  |                   | - Peripheral sensorimotor and autonomic neuropathy  
| Agel   | Gelsolin      |                   | - Carpal tunnel syndrome  
|        |                |                   | - Trophic ulcers  |
| FPLCA  | Ak             | Altered keratin   | - Autosomal dominant  
|        |                |                   | - Chronic pruritus  
|        |                |                   | - Lesions on trunk and extremities resembling macular and lichen amyloidosis  
|        |                |                   | - Age of onset 5-18 years  
|        |                |                   | - Japan, Brazil, and Taiwan  
|        |                |                   | - Mutations in OSMP gene  |
| ACD    | Ak             | Altered keratin   | - Variant of FPLCA  
|        |                |                   | - No pruritus  
|        |                |                   | - Dotted, reticular, hyper and hypopigmentation without papules, distributed over almost entire body  |

**Disclosures**  
The author has no relevant conflicts of interest to disclose.

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RESIDENT ROUNDS: PART III A

Gianotti-Crosti Syndrome Associated with Hepatitis A and Influenza Vaccination

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CASE REPORT

Gianotti-Crosti syndrome (GCS) or papular acrodermatitis of childhood is an uncommon infectious exanthem characterized by an acute eruption of monomorphic papules localized to the face, extremities and buttocks with relative sparing of the trunk. Hepatitis B viral infection is the most common association with GCS worldwide, as opposed to Epstein Barr Virus in the United States. GCS has been reported with many other infectious agents and immunizations.1 We report a case of GCS associated with concomitant hepatitis A and influenza vaccination.

A 2-year-old boy presented with a 2-week history of an asymptomatic cutaneous eruption involving his arms, legs and cheeks. Physical exam revealed monomorphic erythematous papules distributed over his extremities and cheeks with sparing of the palms, soles and trunk (Figures 1 and 2). Review of systems was negative except for hepatitis A and influenza vaccination 10 days prior to the onset of the eruption. His medical history was unremarkable and his parents declined a biopsy. Given the temporal sequence of events and lack of any other relevant precipitant, a clinical diagnosis of GCS was made. Because GCS is usually a self-limited eruption, and in this case asymptomatic, the patient and his family were given reassurance and the rash resolved over the course of 6 weeks.

After a literature search, we concluded that our case represents a rarely reported instance of GCS associated with hepatitis A and influenza vaccination. Our findings reinforce the link between highly immunogenic vaccines, such as hepatitis A, and GCS.2,3 To the best of our knowledge, only one other case of GCS in association with influenza vaccine has been published.4

A number of other immunizations have been implicated as a cause of GCS, such as hepatitis B, measles and polio.5,6 Our case supports the importance of obtaining a thorough history, including immunizations, when evaluating a patient with a rash of unknown origin. As vaccinations continue to become more prevalent worldwide, it is expected that more cases of GCS in association with immunization will be seen. A prompt diagnosis and reassurance to patients and their families may save unnecessary procedures and medical expenditures.
DISCLOSURES
The authors have no relevant conflicts of interest to disclose.

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RESIDENT ROUNDS: PART III B

Pedunculated Melanoma

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*Georgia Health Sciences University, Augusta, GA
*University of Utah, Salt Lake City, UT

CASE REPORT

A 45-year-old white woman presented with a 3-month history of a rapidly growing lesion on her back. She was initially seen in the emergency department and referred to dermatology for treatment of a presumed pyogenic granuloma. She reported having a "mole" in that location prior to the lesion enlarging to its current size. The patient was otherwise healthy. Physical examination revealed a 3.5x2.4 cm pink, bloody, ulcerated, pedunculated nodule on her mid upper back (Figures 1 and 2). No cervical, axillary, or inguinal lymphadenopathy was detected. An excisional biopsy was performed (Figure 3).

Histologic examination revealed a pedunculated nodular melanoma with 12.5 mm Breslow's depth of invasion and ulceration (Figure 3). Pigmentation was absent. The stalk of the pedunculated nodule was free of tumor. Immunostaining showed S100, MELAN-A, and HMB45 positivity. The patient underwent sentinel lymph node biopsy of the bilateral axillae and wide excision of the original biopsy site. The re-excision was negative for residual malignancy, and sentinel nodes were negative for metastatic melanoma. The patient's melanoma was clinically and histologically staged as stage IIC (T4bN0M0), and she had no signs of recurrence at 12-month follow-up.

First described by Volger in 1958,1 pedunculated melanomas have since been shown to be a more virulent variant of nodular melanoma.2-3 Pedunculated melanomas frequently present as ulcerating nodules, most often located on the back.2 The majority are non-pigmented, and, as highlighted in our case, this often results in misdiagnosis as pyogenic granuloma, fibroepithelial polyp (skin tag), or intradermal nevus.2,4 The incidence of pedunculated melanoma is 2% to 5.8%.2,4

When compared with non-pedunculated nodular melanomas, pedunculated melanomas tend to present at an earlier age, have a greater tumor thickness at the time of diagnosis (≥4.0 mm vs. 1.50–2.99 mm), a higher incidence of ulceration,

FIGURE 1. Pedunculated melanoma.

FIGURE 2. Pedunculated melanoma.

FIGURE 3. Melan-A immunohistochemistry.
and a lower 5-year survival rate (42% vs. 57%).

Although increased tumor thickness and the presence of ulceration are 2 independent risk factors for a worse prognosis, pedunculated melanomas are felt to be more virulent than comparable nodular melanomas because of what is termed “bypass behavior.”

Their aggressive vertical growth phase, large tumor mass, and extensive lymphatic and vascular supply may promote early metastasis before the tumor reaches the deep dermis. Given the atypical presentation and aggressive nature of pedunculated melanomas, this case reinforces the need for a high index of suspicion and low threshold for excisional biopsy of any growing or changing lesion even in the absence of pigmentation.

DISCLOSURES

The authors have no relevant conflicts of interest to disclose.

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