

**CLINICAL PRESENTATION OF ACUTE BACTERIAL SKIN AND SKIN STRUCTURE INFECTIONS (ABSSSI) BY BASELINE PATHOGEN IN THE DISCOVER PROGRAM**

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**Objective**

To describe the clinical presentation of abSSSIs caused by *Staphylococcus aureus* versus those caused by streptococcal spp. in patients enrolled in the dalbavancin phase 3 clinical trials.

**Methods**

DISCOVER 1 and DISCOVER 2 were double-blind, double-dummy, pharmacist-unblinded randomized trials that enrolled patients with cellulitis, abscess or wound/surgical site infection with erythema >75cm<sup>2</sup> and either a fever, an elevated white blood cell count >12k cells/mm<sup>3</sup> or immature neutrophils >10%. Eligible patients were randomized to receive dalbavancin 1g IV on Day 1 and 500 mg on Day 8 or Vancomycin with an option to switch to oral linezolid to complete 10-14 days of therapy. Analyses were performed using pooled data from the two trials. Physical signs and symptoms were scored on a scale of 0-3 as absent, mild, moderate or severe; pain was measured on a scale of 1-10.

**Results**

Table1: Demographics of patients with monomicrobial infection by baseline pathogen

Demographics	<i>S. aureus</i> N=405	Streptococci N=73	p value
Mean Age, years	45.4	47.5	0.263
Male Gender, N (%)	256 (63.2)	38 (52.1)	0.072
Race, N (%)			
White	363 (89.6)	66 (90.4)	0.840
Black or African American	30 (7.4)	2 (2.7)	-
Asian	4 (1.0)	4 (5.5)	-
Geographic Region, N (%)			
North America	235 (58.0)	25 (34.2)	<0.001
Europe/Asia	170 (42.0)	48 (65.8)	--
Infection type			
Cellulitis	131 (32.3)	32 (43.8)	0.057
Major Abscess	176 (43.5)	22 (30.1)	0.034
Wound Infection	98 (24.2)	19 (26.0)	0.738

Table2: Systemic signs of infection at baseline by baseline pathogen

Systemic sign of infection
Temperature ≥ 38°
WBC count >12,000 cells/mm <sup>3</sup>
Bands ≥ 10%
Systemic Inflammatory Response Syndrome

Table3: Mean scores of baseline local signs/symptoms of abSSSI by baseline pathogen

Local Sign/Symptom
Erythema
Fluctuance
Heat/localized warmth
Purulent discharge
Tenderness to palpation
Pain score
Lesion size (cm <sup>2</sup> )*

\*p = <0.001

**Conclusions**

In the DISCOVER abSSSI trials, a streptococcal etiology was more common in Europe/ Asia than in North America. As compared with staphylococcal infection, streptococcal infection was associated with larger skin lesions and was more likely to be accompanied by leukocytosis, >10% band forms and SIRS criteria.