

SLE patients, but it is compounded in African American women who experience the disease at a disproportionate rate and severity compared to other demographic cohorts. Peer mentoring interventions are one method examined in other chronic disease populations that has conferred self-management improvements for those patients. The Peer Approaches to Lupus Self-Management (PALS) is one such program, tailored for African American women with SLE, that could lead to cost-effective reductions in disease severity, flares, and subsequent resource utilization and medical costs.

Methods Validated measures of quality of life, disease self-management, disease activity, depression, and anxiety were collected pre- (0 weeks) and post- (12 weeks) intervention. Total direct program costs per-participant were totaled and used to determine average per-unit improvement in programmatic outcome measures. Additionally, the benefit cost ratio and pre- versus post- intervention hospital charges were examined.

Results Twenty mentees completed the study. Statistically significant reductions in disease activity, anxiety, and depression, were observed post-intervention. Patient self-management also improved, however did not reach statistical significance. Total cost per patient was \$1,882.83 or \$91.14 per week. This yielded a cost benefit ratio of \$3423 per 1 unit decrease in the Generalized Anxiety Disorder score, \$818 per 1 unit decrease in the PHQ-8 (depression) score, and \$85.74 per 1 unit decrease in the SLAQ (disease activity) score. There was a statistically significant difference in pre-intervention hospital charges (\$24,289, 95% CI: \$55, \$48,524) and post- hospital charges (\$872, 95% CI: -\$324, \$2,070) ($p=0.047$), representing a substantial mean charge savings of \$23 426 per individual. The benefit cost ratio was 12.44 per patient which implies that benefits were over 12 times higher than the cost per patient.

Conclusions These findings indicate that the PALS intervention was not only effective in improving patient-level factors such as depression, anxiety, and self-reported disease activity, but the program was also highly cost-effective. These findings suggest that if adopted on a larger scale, this approach could significantly reduce financial burden on patients and medical facilities, as well as improve the quality of life of a high-risk patient population. Future research will need to validate these findings in a larger sample.

Funding Source(s): This project was supported by NIH/NCATS Grant Number UL1, the Rheumatology and Immunology MCRC NIH/NIAMS Grant Number AR062755, NIH/NIAMS K23 AR052364, and NIH/NCRR UL1 RR029882.

142

APPROACHING CYTOPENIAS IN SYSTEMIC LUPUS ERYTHEMATOSUS: WHAT DOES THE BONE MARROW REVEAL?

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10.1136/lupus-2019-ism.142

Background Cytopenias are a common manifestation in systemic lupus erythematosus (SLE), and it is fundamental to determine their etiology in order to establish an adequate therapeutic strategy. The aim of this study was to

determine the relevance of bone marrow aspirations (BMA) and biopsies while studying the cause of cytopenias in SLE patients, as well as describing associated clinical and laboratory features.

Methods We performed a retrospective study in a third-level hospital in Mexico City. We included patients who fulfilled ACR criteria for SLE, presented with cytopenias and had a BMA and biopsy performed between 2000 and 2016. We described the main aspirate and biopsy findings, and also analyzed the final diagnosis and its association with clinical, laboratory and serological features.

Results We included 101 patients; 81.2% were women. Median age was 32 years. Leukopenia (<3000 cells/ μ l) was found in 47.5% of patients; with lymphopenia (<1000 cells/L) being a common finding (71.3% of patients). Moderate-to-

Abstract 142 Table 1 Clinical and serologic characteristics of patients with SLE and cytopenias secondary to disease activity or drug-associated myelotoxicity at the time of the bone marrow aspirate

Characteristic	Disease activity (n=25)	Drug-associated myelotoxicity (n=28)	p
Time since SLE diagnosis (months)	12 (0–348)	54.5 (0–372)	0.038
History of disease activity	80%	86%	0.719
- Mucocutaneous	100%	96.4%	1
- Hematologic	44%	78.6%	0.012
- Renal	28%	32.1%	0.774
- Serositis			
Hemoglobin (g/dL)	8.6 (3.9–15.4)	9.5 (6.7–15.7)	0.674
Neutrophils (cells/μl)	76%	35.7%	0.004
- Normal (>1500)	16%	17.9%	
- Mild neutropenia (1000–1499)	4%	7.1%	
- Moderate neutropenia (500–999)	4%	39.3%	
- Severe neutropenia (<500)			
Lymphopenia (<1000 cells/ μ l)	68%	70%	1
Platelets (K/ μ l)	56%	57.1%	
- Normal (>100)	16%	10.7%	0.859
- Mild thrombocytopenia (50–99)	28%	32.1%	
- Severe thrombocytopenia (<50)			
Anti-dsDNA antibodies (reference value:<9.6 mg/dl)	24.75 (7.8–1674.7)	30.5 (2.8–1874)	0.833
SLEDAI score	6 (0–23)	6 (1–14)	0.370
SLICC damage index	0 (0–5)	0 (0–6)	0.791
Treatment	24%	53.6%	0.048
- Azathioprine	0%	14.3%	0.113
- Mofetil mycophenolate	4%	35.7%	0.006
- Hydroxychloroquine	56%	46.2%	0.553
- Prednisone	16%	28.6%	0.355
o \leq 7.5 mg	28%	25%	1
o 7.6–30 mg	4%	14.3%	
o 31 or more mg	20%	21.4%	
- Methotrexate			
- History of cyclophosphamide			
Disease activity at the time of BMA	24%	28.6%	0.763
- Renal	48%	21.4%	0.049
- Articular	20%	0%	0.019
- Serositis	16%	0%	0.043
- Central nervous system			

severe thrombocytopenia (<50 K/ μ l) was present in 28.7% of patients. Finally, 25.8% of patients presented with pancytopenia.

In 72.3% of patients, bone marrow interpretation, along with clinical and laboratory findings, lead to a conclusive diagnosis. The most common final diagnoses were disease activity (24.8%) and drug-associated toxicity (28.7%). The agreement between the initial diagnostic impression and the conclusion after BMA was performed was 45.5%.

We analyzed factors associated with the most common etiologies (table 1). Regarding BMA findings, when cytopenias were secondary to disease activity, it was more frequent for the bone marrow to be hypercellular (56 vs 23%, $p=0.006$) and to have increased megakaryocytes (40 vs 17.4%, $p=0.048$). Conversely, granulocytic dysplasia was less common in this group of patients (17.4% vs 54.3%, $p=0.036$).

After multivariate analysis, a neutrophil count <1000 cells/ μ l was a protective factor for disease activity (OR 0.021; 95% CI 0.001–0.428, $p=0.012$). On the other hand, a history of renal activity (OR 4.3; 95% CI 1.3–14.2, $p=0.024$) and neutrophils <1000 cells/ μ l (OR 4.05; 95% CI 1.15–14.19, $p=0.029$) were found to be independent risk factors for myelotoxicity.

Conclusions The most frequent diagnoses of SLE patients presenting with cytopenias were disease activity and drug-associated bone marrow toxicity. There are clinical characteristics and laboratory findings that may guide the diagnostic approach and thus, choose the most appropriate therapeutic intervention. BMA and biopsy play a key role in complementing the study of cytopenias in SLE patients, allowing for a complete evaluation of the particular context of each patient.

Funding Source(s): None

143

LEVERAGING A COMMUNITY-ACADEMIC PARTNERSHIP TO INCREASE LUPUS AWARENESS IN VULNERABLE COMMUNITIES

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10.1136/lupus-2019-lsm.143

Background The Popular Opinion Leader (POL) model was developed by the Centers of Disease Control to train community leaders to increase awareness in their social networks about health-related issues that disproportionately affect vulnerable populations. We established an academic-community partnership in Chicago and Boston and used a POL model to increase knowledge about lupus and to promote early care-seeking behaviors among African American individuals. With the knowledge that where a person lives directly influences his/her health, one of our goals was to understand the socio-demographic characteristics of the Chicago communities where the POLs disseminated lupus-related information.

Methods Ten POLs were identified and participated in four two-hour session educational training program. All POLs were female, the mean age was 59% and 100% were African American. Over the course of 6 months, the POLs tracked their encounters throughout their social networks by recording addresses of venues where educational information was disseminated and the number of individuals contacted. Data were

Abstract 143 Table 1 Chicago sociodemographic factors

Community-Level Data	Washington Heights	Morgan Park	Englewood	Roseland
Racial Composition				
% African American	95.8%	54.6%	95%	96.1%
Clinical				
No health insurance	10.5%	8.4%	17.2%	12.4%
Economic				
Individual Poverty *	18.6%	18.5%	30.8%	27.2%
Education				
Not a high school graduate	10.1%	10.7%	19.7%	13.5%

* Individual poverty is classified as percent below Federal Poverty Level (U.S Census; American Community Survey 2010–2015).

entered into the Geographic Information System to evaluate the reach of their networks. We utilized the Healthy Chicago Database to describe the sociodemographic factors and some of the health resources of the Chicago neighborhoods identified by the POLs social networks.

Results The 10 POLs social networks were concentrated in four selected communities (Washington Heights, Morgan Park, Englewood and Roseland). These neighborhoods are located on the Southside of Chicago where health, educational, and financial resources are limited. All four communities were predominantly African-American, range 54.6%–96.1%. Individuals living in these neighborhoods with no health insurance ranged from 8.4%–17.2%, in Morgan Park and Englewood, respectively. Individual poverty was highest in Englewood (30.8%) and Roseland (27.2%) compared with approximately 18% in the other two neighborhoods. The percentage of individuals who did not complete high school was highest in Englewood (19.7%) and Englewood (13.5%) compared with approximately 10% in the other two areas.

Conclusions Engagement of local community members through POL conversations tapped into neighborhoods that demonstrated concerning sociodemographic features such as individual poverty, lack of health insurance, and lack of education through high school. Since the POLs had strong social networks prior to recruitment, they selected these communities to facilitate dissemination of lupus awareness education where resources may be limited. This illustrates the importance of POL engagement with community stakeholders who can use this information to work towards reducing health disparities in lupus in communities with limited resources.

Funding Source(s): DHHS, Office of Minority Health

144

YOUNG SLE PATIENTS HAVE HIGHER CORONARY ARTERY CALCIUM SCORES COMPARED WITH POPULATION CONTROLS

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10.1136/lupus-2019-lsm.144

Background Cardiovascular disease (CVD) is a leading cause of death in systemic lupus erythematosus (SLE). The