P53 ACUTE WEST NILE VIRUS INFECTION IN AN SLE PATIENT – DIAGNOSTIC AND THERAPEUTIC CHALLENGES

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Background Systemic Lupus Erythematosus (SLE) patients are known to be prone to infections. In particular differential diagnosis between an acute infection or a disease flare should be performed in any SLE patient with fever or recurrent fever and signs of acute disease. Differential diagnosis becomes even more difficult in an SLE patient with central nervous system (CNS) involvement. The aim was to describe an SLE patient with CNS involvement and acute West Nile virus infection.

Methods A female patient was diagnosed with SLE at the age of 32 with a light-sensitive face eruption, hair loss, fatigue, arthralgias, ANA 1/320 (+) and anti-dsDNA (+). At the age of 45 she developed CNS involvement with epileptic seizures, dystarhy, memory loss, concentration difficulties and an abnormal EEG. At the age of 53 she had an acute SLE flare and pulse cyclophosphamide iv was administered. Thereafter rituximab was given followed by hydroxychloroquine and prednisolone 10 mg/d. At the age of 54 years 3 months after the third rituximab cycle, while on therapy with hydroxychloroquine and prednisolone she developed diarrhea, vomiting and fever up to 40°C not responding to antipyretics. She presented to the emergency department with deteriorating renal function, fever and confusion.

Results A brain MRI showed meningeal thickening and a lumbar puncture was performed. The diagnostic evaluation of the fluid aspirated showed a recent infection with the West Nile virus with IgM (++) in serum and IgM (+) in the cerebrospinal fluid. Two weeks later the patient had improved, was oriented in place and time and had no focal neurological signs.

Conclusions Patients with SLE are prone to infection, especially if they are on long-standing treatment with steroids. Whenever they present with signs of acute disease they should be carefully evaluated for the presence of an acute infection, as infections demand a different therapeutic approach to a disease flare. A patient with CNS involvement demands even more careful and extensive evaluation. The presence of West Nile virus in Europe in recent years along with other mosquito-borne viruses have created new diagnostic and therapeutic challenges in the management of immunosuppressed patients, as was the case in the patient presented herein.

Background/ Purpose This is a prospective study analysed the incidence of skin cancer (SC) (melanoma and non-melanoma SC) in 90 adult patients affected by Systemic Lupus Erythematosus (SLE), followed-up in one single Rheumatological Center, compared with 54 patients affected by Systemic Sclerosis (SSc) and 90 sex- and age-matched 90 control subject.

Methods In a period between February and July 2019, every patient underwent a complete dermatological evaluation and filled out a questionnaire regarding their personal or family history of SC, the presence of different risk factors of SC and the occurrence of photosensitivity.

Results 90 SLE patients (96,7% female, mean age: 44 years; range: 18–78) showed photosensitivity in 60% of cases. 63% of patients avoided sun exposure at every hour of the day, 80% used photoprotection and 28% referred systemic worsening of SLE features after sun exposure. No new onset skin cancer was diagnosed.

Three SLE patients referred a history of SC (1 basalioma, 1 melanoma, 1 multiple actinic lesions) onset after the SLE diagnosis. Patients with skin cancer (SC+) didn’t show any differences compared with patients without skin cancer (SC-) except for more frequent photodamage features (p: 0.032) and less frequent photosensitivity (0.031).

SLE patients more frequently showed photosensitivity (p<0.0001), photoprotection (p<0.0001), disease worsening and skin worsening after sun exposure (p: 0.033 and 0.002, respectively) compared with SSc cases. No differences in past history of SC was evident between groups.

Comparing SLE with age-, sex- and phototype-matched control cohort, SLE patients showed a lower rate of past history of basalioma skin cancer (p: 0.013), lower rate of photodamage (0.027) and higher rate of photosensitivity (p<0.0001).

Conclusions SLE patients showed a significant lower rate of skin cancer, despite a higher rate of photosensitivity, compared with control cohort. This data could be due to a strict and continued photoprotection.

P54 INCIDENCE OF SKIN CANCER IN SYSTEMIC LUPUS ERYTHEMATOSUS COMPARED WITH SYSTEMIC SCLEROSIS AND GENERAL POPULATION

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Background/ Purpose The incidence of skin cancer (SC) (melanoma and non-melanoma SC) in 90 adult patients affected by Systemic Lupus Erythematosus (SLE), followed-up in one single Rheumatological Center, compared with 54 patients affected by Systemic Sclerosis (SSc) and 90 sex- and age-matched 90 control subject.

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Comparing SLE with age-, sex- and phototype-matched control cohort, SLE patients showed a lower rate of past history of basalioma skin cancer (p: 0.013), lower rate of photodamage (0.027) and higher rate of photosensitivity (p<0.0001).

Conclusions SLE patients showed a significant lower rate of skin cancer, despite a higher rate of photosensitivity, compared with control cohort. This data could be due to a strict and continued photoprotection.
development of clinical disease and associated changes in immune status, gut and energy homeostasis. **Results** Animals fed a HFD showed lower autoantibody titres going along with an improved overall survival and a tenden-
tiously lower infiltration of the kidney by leukocytes. Benefi-
cial clinical effects were reflected in systemic immunologic
changes, as the distribution and differentiation of main
immune cell subsets in HFD animals more closely resembled
that of yet healthy animals. We assume that most probably a
complex interplay of different fiber-associated effects underlies
these favorable effects. This may involve intestinal leakage and
bacterial translocation that were increased in LFD animals.
Further, LFD animals showed a significant increase in body
weight and white adipose tissue expressing more leptin and
inflammatory cytokines. We are currently testing, if the
observed beneficial effects may also be attributed to an
increased fermentation of dietary fibre into SCFA. SCFA inter-
sect in various ways and at different sites with the immune
system and mostly have anti-inflammatory effects.
**Conclusion** Altogether, we think that intake of dietary fiber
affects immune status, gut and energy homeostasis. These may
be interlinked and affect each other, inflicting more or less
systemic chronic inflammation promoting lupus pathology.
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**P65 RHUPUS SYNDROME IN A TERTIARY HOSPITAL**
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**Background/Purpose** Rheumatoid Arthritis (RA) and Systemic Lupus Erythematosus (SLE). Different studies describe RhS cases that begin with erosive arthritis and the presence of rheumatoid factor (RF) and/or anti CCP and then the SLE symptoms.

**Methods** Retrospective study with systematic revision of elec-
tronic clinical records of RhS patients was performed. Demo-
graphic, clinical and immunological data were collected.

**Results** Eight RhS patients were included (all fulfilled SLICC
criteria for SLE and ACR 2010 for RA). Mean age was
67.3 (45–84) years (7 were female).

In 3 cases RA was the first diagnosis with a mean evolution of
4.5 years until SLE diagnosis. In contrast, in 5 cases SLE
was the first diagnosis with a mean evolution of 7.2 years
until RA diagnosis. Photosensitivity and arthritis were the
predominant clinical manifestations. One patient presents pericar-
ditis and other case showed rheumatoid nodules in elbows.
Renal, pulmonary or neurological affection was no reported.

4 patients were under biological/JAK inhibitors therapies (2
abactcept, 1 rituximab and 1 baricitinib) with favorable response of treatment.

**Conclusions** In contrast to other series, only the 37.5% of our
RhS cases begins with polyarticular seropositive arthritis. The
62.5% started with SLE symptoms as haematological alter-
tations, cutaneous and serological manifestation, and showed
longer progression to have polyarticular affection. Thus, RhS
diagnosis is earlier in patients that begin with RA symptoms.
4 RhS patients were refractory to DMARD treatments, where biological/JAK inhibitors therapies are needed.

**P57 SMOKING AND PRIMARY CHRONIC CUTANEOUS LUPUS: WHO ARE THE MOST VULNERABLE?**

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**Abstract P57 Table 1** Association of tobacco smoking status with disadvantage score among adults with Primary CCLE. Multivariate Analysis*

<table>
<thead>
<tr>
<th>Disadvantage score*</th>
<th>CS vs NS (OR [95% CI])</th>
<th>P-value</th>
<th>CS vs FS (OR [95% CI])</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–1</td>
<td>(Ref)</td>
<td>(Ref)</td>
<td>(Ref)</td>
<td>(Ref)</td>
</tr>
<tr>
<td>2–3</td>
<td>3.9 (1.1–13.3)</td>
<td>0.03</td>
<td>6.9 (1.5–31.7)</td>
<td>0.01</td>
</tr>
<tr>
<td>4–6</td>
<td>9.3 (2.5–34.6)</td>
<td>0.003</td>
<td>7.6 (1.6–35.6)</td>
<td>0.004</td>
</tr>
</tbody>
</table>

*Multivariate logistic regression adjusted for significant confounders (age, gender, and der-
mato logic visits). **Disadvantage score represents the sum of 1 point for each of the follow-
ing characteristics: living below the federal poverty level, ≤ high school, African American
race, unemployed/disabled, self-perceived discrimination, moderate to severe depressive
symptoms. Abbreviations: NS=Never Smoker; FS=Former Smoker; CS=Current Smoker; OR=Odds Ratio;
CI=Confidence Interval; ref=Reference Group.