

LPS raised cytokine (TNF- $\alpha$ , IL-1/IL-1Ra, IL-6, IL-8) secretion resulting in higher response in OA than in RA tissues. Upon some (TNF- $\alpha$ , IFN- $\gamma$ , IL-1) but not other (IL-15, IL-17, IL-23) cytokines treatment secretion of tested cytokines raised significantly. Interestingly, TNF- $\alpha$  triggered higher IL-6 secretion in AA than in ScA (both in RA and OA), while IL-1 was more potent inducer of IL-6 and IL-8 release from OA than RA adipose tissues. Importantly, upon TNF- $\alpha$  (ScA) and IFN- $\gamma$  (AA) treatment IL-1/IL-1Ra ratio was higher in RA than in OA tissues. Adiponectin levels were unaffected by cytokines, while leptin secretion was raised (by IL-1 and IFN- $\gamma$ ) more potently in OA than RA tissues.

**Conclusion** The authors reported that (i) upon proinflammatory cytokines (TNF- $\alpha$  and IFN- $\gamma$ ) stimulation IL-1/IL-1Ra ratio (promoting joint destruction) was higher in RA tissues; (ii) adipose tissues obtained from OA patients secreted more adiponectin (anti-inflammatory adipokine); (iii) upon IL-1 stimulation OA tissues produced more proinflammatory cytokines (IL-6 and IL-8).

The authors' results give direct evidence that adipose tissues from RA and OA patients differ in cytokine and adipokine production associated with proinflammatory and destructive capability.

#### A215 ADIPOSE TISSUES FROM RA AND OA PATIENTS DIFFER IN CYTOKINE AND ADIPOKINE PRODUCTION

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**Objectives** Cytokines and adipokines play fundamental role in synovial inflammation and articular destruction. Articular and subcutaneous adipose tissues have been suggested to play a role in inflammatory joint diseases. The aim of present work was to investigate whether adipose tissues from rheumatoid arthritis (RA) and osteoarthritis (OA) patients differ in adipokine and cytokine production.

**Materials and methods** Articular (AA) and subcutaneous (ScA) adipose tissue explants, obtained from RA and OA patients who were undergoing knee joint replacement surgery, were cultured (100 mg/ml) for 18 h in medium (DMEM) alone or in the presence of lipopolysaccharide (LPS) (1  $\mu$ g/ml) or cytokines: tumour necrosis factor (TNF)- $\alpha$  interferon (IFN)- $\gamma$  and IL-1, IL-15, IL-17 or IL-23 (10 and 40 ng/ml). Concentrations of TNF- $\alpha$ , IL-6, IL-8, IL-1, IL-1Ra, adiponectin and leptin were measured in culture supernatants by ELISA.

**Results** Spontaneous secretion of adiponectin was higher in OA than in RA adipose tissues, while production of other cytokines was similar.