Results:
BPA values ranged between 0.05-8.55 and 0.05-1.84 in cases and in controls, respectively; BPA-G values ranged between 0.05-16.1 and 0.05-7.38 in cases and in controls, respectively; total BPA values ranged between 0.05-3.26 and 0.05-3.51 in cases and in controls, respectively. DEHP values ranged between 13.63-57.78 and 16.66-61.93 in cases and in controls, respectively; MEHP values ranged between 1.74-6.16 and 4.26-14.16 in cases and in controls, respectively; total DEHP ranged between 15.27-63.93 and 21.72-72.73 in cases and in controls, respectively. A reverse correlation was found between endometriosis and phthalates, while a direct correlation was found between BPA and endometriosis.

Conclusions:
The direct correlation between BPA and endometriosis suggests the decreasing the use of plasticizer in food packaging and the importance to implement interventions and strategy to minimize exposure. The reverse correlation between endometriosis and DEHP could be explained by the small size of sample and by the monitoring of urine that are representative of a short-time exposure.

Key messages:
- Improve epidemiological studies with analysis of alternative matrices that are more representative of long-time exposure.
- Implement interventions and strategy to minimize exposure to plasticizer.

Case-control study about exposure to BPA and DEHP and risk of endometriosis

M Fiore[1], P Zuccarello[1], M Gulisano[2], M Monteleone[2], G Bonaccorso[1], G Oliveri Conti[1], C Copat[1], M Palumbo[2], M Ferrante[1]
[1]Department ''G.F. Ingrassia'', University of Catania, Catania, Italy
[2]Department of Medical Surgical Specialties, University of Catania, Catania, Italy
Contact: marfer@unict.it

Background:
BPA and DEHP are endocrine disruptors. BPA-G and MEHP are their main metabolites. The main exposure route for human is the diet. Endometriosis is a pathology with uncertain etiopathogenesis, characterized by disturbances in sex hormones balance with a prevalence in women ranged from 1% to 7% in women aged 15-45 years.

Methods:
A case-control study should highlight a possible relationship between exposure to DEHP and BPA and endometriosis. Patients (n = 40) with a surgical diagnosis of endometriosis will compose the group of cases; healthy women (n = 40) will compose the control group. Cases and controls will be studied by means of questionnaires and by means of urinary analysis of these endocrine disruptors concentration.