

drug reaction (286.51.2%), but even in case of asthma (282, 50.5%), food allergy (62, 11.1%) and latex allergy (12, 2.15%). No serious adverse event has occurred in patients we examined.

**Conclusions:** Our data show the importance of the presence of Allergy Units in Hospital and emphasise the growing attention on the allergologic diseases in obstetric gynaecological field.

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##### Adverse drug reactions in adults attending different consultations

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**Background:** Adverse drug reactions (ADRs) are extremely common, but there are no national studies in Portugal. Studies in other parts of the world indicate an incidence of about 8%. Our aim was to evaluate the incidence of ADRs and to characterize them in adults observed in consultations from different specialities.

**Methods:** Questionnaires regarding adverse drug reactions were randomly given to 30 patients attending consultations from different specialities: Immunoallergology, Obstetrics, Internal Medicine and Dermatology (120 total). Patients attending the drug allergy consultation were excluded. No other exclusion criteria were used. The questionnaire was made by the Drug hypersensitivity interest group of the Portuguese Society of Allergology and Clinical Immunology (SPAIC) and included 17 questions in order to adequately characterize the ADRs the patients had experienced, if any, specifically to the culprit drug, their symptoms and onset, the administration method, treatment, as well as concomitant administration of other drugs. Personal and family history of atopy and allergic drug reactions were also asked about.

**Results:** One hundred and twenty patients (72.5%F) answered the questionnaire. The mean age was  $40.8 \pm 18$  years. 80.8% denied ever having an ADR. Regarding the remaining, 8 reported having skin symptoms (rash, urticaria, angioedema), 3 gastro-intestinal symptoms (vomiting, abdominal cramps, diarrhoea), 9 respiratory symptoms (sneezing, dyspnoea, glottis oedema). Finally, 7 patients reported other complaints (tachycardia, dizziness, etc.). Five patients implicated beta-lactams and other 5 NSAIDs as the culprit drug. 8 patients were also taking other drugs at the time, and 6 had some kind of infection or high temperature. Eighteen patients took the drug in the form of a pill, while 5 patients had the drug administered via parenteric route. Nine patients had an immediate reaction. Thirteen patients had to

seek medical assistance. The mean age at the time of the ADR was  $31 \pm 14$  years. Twelve patients had a personal history of allergic disease, 12 a family history of allergic disease and 6 a family history of drug allergy.

**Conclusion:** The incidence of ADRs in our population was similar to that reported in the general population. Most of the reactions reported were, however, possibly allergic in nature. Many of these were considered mild, with 43% of the patients not seeking medical attention. However, 2 patients described what can be considered as anaphylactic reactions.

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##### Lymphocytes transformation test with dendritic cells as antigen presenting cells in non-immediate allergic reactions to iodine contrast media

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**Rationale:** Non-immediate allergic reactions to iodine contrast media (ICM) represent 2–5% of patients with adverse reactions to ICM. Although these reactions are T cell mediated, the lymphocyte transformation test (LTT) is frequently negative. We compared the LTT to ICM using either B lymphocytes and monocytes (B linf/mo: classical LTT) or Dendritic Cells (DC) as antigen presenting cells.

**Methods:** Peripheral blood lymphocytes and immature monocyte-derived DCs (imDC) were obtained from 4 patients with non-immediate allergy to iodixanol and 4 tolerant subjects. B linf/mo or imDCs were cultured with lymphocytes and different ICM (iodixanol, iomeprol, ioversol and meglumine ioxaglate) and lymphocyte proliferation was analyzed by means of H3-T incorporation. The stimulation index (SI)  $\geq 3$  was considered a positive response.

**Results:** Classical LTT (B linf/mo) was negative in 3 patients with all ICM analyzed and positive to iodixanol in case 4 (SI = 3.32). However, LTT with imDCs showed a positive proliferation to iodixanol in all 4 cases (case 1: SI = 5.74; case 2: SI = 10.55; case 3: SI = 6.69; case 4: SI = 17.39), with different degrees of cross reactivity with other ICM. Both tests were negative in controls with all the ICM tested.

**Conclusions:** Proliferative responses to the culprit ICM were detected in patients with non immediate allergic reactions to iodixanol, suggesting that a specific immunolo-

gical mechanism takes part. However, the fact that proliferative responses were mostly observed when DC were used emphasize the importance of these antigen presenting cells in the development of allergic responses to ICM.

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##### Contrast media hypersensitivity in Turkey: its prevalence and the role of skin testing in the diagnosis

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**Background:** Hypersensitivity to contrast media (CM) is quite common and a serious problem. However there is no data about the prevalence of CM-induced reactions in Turkey. In this study we aimed to evaluate; the prevalence, types and risk factors associated with CM-induced reactions, and diagnostic role of skin testing in these reactions.

**Method:** A total of 1131 patients (F/M: 501/630, mean age:  $55 \pm 14.2$  years) recruited from radiology department were consequently included into the study. All patients were questioned about current or past CM-induced reactions besides demographic and clinical evaluation. Patients with early and delayed type reactions to CM underwent skin testing including prick test, intradermal test and patch test with implicated CM. Fifteen age and gender matched patients who tolerated CM served as control group. Data were compared between patients with CM sensitive and tolerant.

**Results:** The prevalence of past reaction to CM was 2.9% (*n*: 33) early reaction in 21 (63%) and late reaction in 12 (37%). Twenty-six of the past reactors underwent radiological evaluation without CM and 7 were premedicated before evaluation. A total of 1105 patients received non-ionic monomer or dimer CM via intravascular route. The most preferred agent was iohexol (*n*: 784, 69.3%). The prevalence of sensitivity to CM was 0.7% (*n*: 8), during the current radiological evaluation. Considering past and current reactions, the total prevalence of sensitivity to CM was 3.62% (*n*: 41). As current sensitivity reaction, 4 patients developed early reactions (0.35%) (Grade 1–2) and 4 delayed type reactions (mild-moderate) (0.35%). The most frequently reported symptoms were itching and urticaria as early or delayed type reactions. No hospitalization and mortality observed. Women gender, asthma, drug or food allergy and psychiatric diseases were found as significant risk factors associated