Exposure to tetracycline, sulpha-antibiotics, corticosteroids or lithium and risk of idiopathic intracranial hypertension (IIH).

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Conclusions:

This national case-control study confirms previously observed association between IIH and exposure to tetracyclines, sulpha-antibiotics, corticosteroids and lithium.

Contraceptives and iron-deficiency anemia have been debated as being possibly associated with IIH; this study did not show such an association when analyzing exposure to contraceptives or iron supplements.

Introduction:

Idiopathic intracranial hypertension (IIH) is a disorder that primarily affects young, obese females. The etiology of IIH is not fully understood – however several risk factors have been proposed associated with IIH.

Aim:

To investigate the association between previously proposed risk factor drugs and IIH.

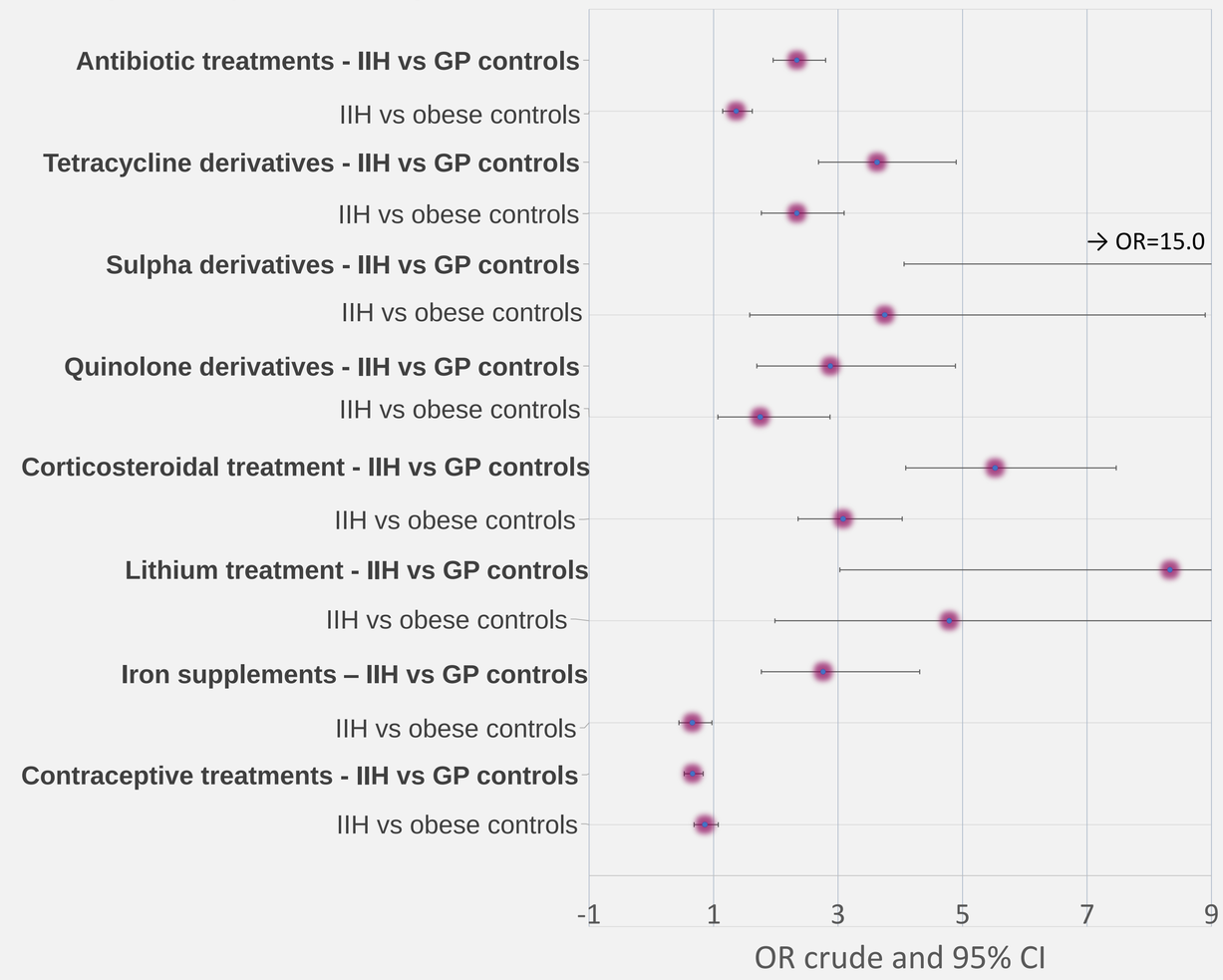
Methods:

Using data from the Swedish health registers and predefined algorithms, we identified incident IIH patients between July 2006-Dec 2016 and compared them with controls (five general population (GP) controls + five obese controls randomly selected and matched for age, sex, region and vital status). The Prescribed Drug register provided information on the exposures. Conditional logistic regression was used to estimate odds ratios (OR) and 95% confidence intervals (CI).

Table 1: Number of individuals with at least one dispensation of medication one year prior to index date.

Type of medication:	IIH patients N=654 n (%)	GP controls N=3270 n (%)	Obese controls N=3270 n (%)
All antibiotic treatments	259 (40)	720 (22)	1064 (33)
Tetracyline derivative treatments	80 (12)	123(3.8)	186 (5.7)
Sulpha derivative treatments	9 (1.4)	3 (0.1)	12 (0.4)
Quinolone derivative treatments	22 (3.4)	39 (1.2)	64 (2.0)
Corticosteroids for systemic use	97 (15)	103 (3)	178 (5)
Lithium	10 (1.5)	6 (0.2)	11 (0.3)
Iron supplements	31 (4.7)	54 (1.8)	226 (6.9)
Contraceptives	122 (19)	806 (25)	681 (21)

Figure 1: Odds ratio of dispensations from pharmacies one year prior to diagnosis (index date)



Results:

In total, 654 patients with IIH diagnosis, 3270 matched GP controls and 3270 matched obese controls were included in the study. Compared to GP controls the OR for exposure to tetracyclines was 3.6 (95% CI 2.7-4.9), sulpha antibiotics 15.0 (95% CI 4.1-55.4), corticosteroidal treatments 5.5 (95% CI 4.1–7.5) and lithium 8.3 (95% CI 3.0-22.9). Similar trend but lower magnitude was seen when using matched obese controls. Contraceptives were less used among IIH compared to GP controls (OR=0.7, 95% CI 0.5-0.8) and iron supplements were most common among obese controls.

Register studies on IIH and associated risk factors ongoing. Association seen also with infectious and inflammatory disorders – oral presentation Saturday.

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