The diagnosis of asthma during pregnancy, better before than after
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Background: The diagnosis of asthma can be difficult to confirm. Recently, a study of Aaron et al in the JAMA showed that about 33% of adults with a physician diagnosis of asthma did not have asthma when assessed by a stepwise diagnostic algorithm. Dyspnoea during pregnancy can be a result of variable causes. In patients presenting with dyspnea during pregnancy, it is not always possible to confirm the diagnosis of asthma. Mainly because, in case of normal spirometry, performing bronchial provocation testing (BPT) during pregnancy is contra indicated.

Methods: This retrospective cohort consists of all pregnant women referred to the Asthma & Pregnancy outpatient clinic (Haga Teaching Hospital, Netherlands) from 2014 until 2017. At first consultation spirometry testing with reversibility, fractional exhaled nitric oxide (FeNO) measurement, asthma control questionnaire (ACQ), blood eosinophils and allergy testing were performed.

Results: 95 pregnant women were referred at a mean gestational age of 18 weeks. At first consultation mean ACQ was 2.1. In 63% of patients, the diagnosis of asthma was confirmed by spirometry and reversibility testing or bronchial provocation testing in combination with typical asthma symptoms, before or during the first consultation. In 37% of patients, the diagnosis of asthma could not be confirmed by spirometry or BPT; although their FeNO and blood eosinophils were lower compared to the group with the diagnosis of asthma confirmed (table 1). In four patients, an alternative diagnosis was made OSAS (n=1), mycoplasma infection (n=2), sickle cell disease (n=1).

Conclusion: Since diagnosing asthma has the consequence of treating patients for a long time with medication with potential side effects, it is of importance to make maximum efforts to confirm or exclude asthma during or ideally before pregnancy. In case of normal spirometry, blood eosinophils and FeNO in combination with typical asthma symptoms could add important information when considering the diagnosis of asthma.

Biography
Saar van Nederveen-Bendien is working as a Pulmonologist in a teaching hospital in the Hague, Netherlands. Her main interests include Asthma and Allergy. In 2014, she started a specialized asthma and pregnancy outpatient clinic. This resulted in a large cohort of pregnant patients with asthma. In the Netherlands, the treatment of asthma during pregnancy is still sub-optimally organized, mainly because of fear for teratogenic effects of asthma medication during pregnancy patients and doctors regularly stop or decrease medication.

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