

# Management van leveradenomen gedurende de zwangerschap.

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Pending
<b>Health condition type</b>	-
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON27872

### Source

Nationaal Trial Register

### Brief title

PALM

### Health condition

Hepatocellular adenoma (HCA) is rare benign tumor of the liver that occurs particularly in women during their reproductive years. The incidence is not exactly known. Studies performed years ago show an estimate incidence of 1-1.3 per 1,000,000 in women who have never used oral contraceptives (OC), compared to 30-40 per 1,000,000 in long-term users. Symptomatic patients with HCA present with right upper quadrant abdominal pain or discomfort secondary to bleeding within the HCA, elevated liver enzymes and symptoms of life threatening hemorrhage into the peritoneal cavity. However, most patients with HCA are asymptomatic and present as an incidental finding during ultrasonographic examination of the abdomen for unrelated reasons or are noted during laparoscopic cholecystectomy. Despite its benign nature, the diagnosis of HCA has a great impact of the lives of these, mostly, young women because HCA can be complicated by hormone induces growth and rupture. Besides that malignant transformation of HCA into hepatocellular carcinoma has been reported. Regarding the etiology and risk factors all female patients should be advised to stop OC's and other hormone medication such as hormone replacement therapy, since regression of HCA may occur when steroids are withdrawn and observation should be the first choice of treatment for most patients with HCA. Because of the risk for spontaneous rupture most authors believe that surgical resection is required if the diameter exceeds 5 cm after 6 months of follow-up without OC use, if the lesion does not show adequate regression after discontinuation of OC or if rebleeding occurs. Surgical resection is also indicated if there is any doubt whether a tumor is malignant.

## Sponsors and support

**Primary sponsor:** Erasmus University Medical Center Rotterdam

**Source(s) of monetary or material Support:** Erasmus University Medical Center Rotterdam

## Intervention

## Outcome measures

### Primary outcome

To investigate the incidence of hepatocellular adenoma growth during pregnancy.

### Secondary outcome

1. To investigate in which trimester of pregnancy growth of hepatocellular adenoma (HCA) occurs;
2. To investigate the degree of growth of HCA during pregnancy;
3. To investigate whether there is regression of HCA postpartum;
4. To investigate the HCA-related interventions during pregnancy;
5. To investigate the incidence of bleeding of HCA during pregnancy;
6. To investigate liver-related clinical signs during pregnancy;
7. To investigate elevated liver enzymes during pregnancy;
8. To evaluate the quality of life of pregnant patients with HCA;
9. To investigate whether there is a difference between quality of life of pregnant patients with HCA and pregnant patients with other comorbidity that have an indication for pregnancy care at the obstetrician in secondary care and healthy pregnant patients.

## Study description

### Background summary

Aim:

Hepatocellular adenoma (HCA) in pregnant women requires special considerations because of the risk of hormone induced growth and spontaneous rupture, due to increased levels of steroid hormones during pregnancy that may threaten the life of both mother and child. Due to scarcity of cases there is no evidence-based algorithm for the evaluation and management of HCA during pregnancy. Most experts advocate that women with HCA should not get pregnant or advise surgical resection before pregnancy. Whether it is justified to deny a young woman a pregnancy, as the biological behaviour may be less threatening than presumed depends on the incidence of HCA growth during pregnancy. We aim to investigate the management and outcome of HCA during pregnancy based on a prospectively acquired online database in the Netherlands.

## Methods:

The Pregnancy And Liver adenoma Management (PALM) - study starts on November 1 2011 and inclusion of patients will be a period of 3 to 5 years. The PALM-study is a multicentre prospective study in three cohorts of pregnant patients. In total 100 pregnant patients,  $\geq 18$  years of age with a radiologically and/or histologically proven diagnosis of HCA will be included in the study. Radiological diagnosis of HCA will be based on contrast enhanced MRI. Lesions must not exceed 5 cm. The study group will be compared to a healthy control group consisting of 63 pregnant patients,  $\geq 18$  years of age without HCA and a group consisting of 63 pregnant patients,  $\geq 18$  years of age with diabetes mellitus without HCA. During their pregnancy HCA patients will be closely monitored by means of repetitive ultrasound (US) (and MRI in case of growth of the lesion(s)) at 14, 20, 26, 32 and 38 weeks of gestation and 6 and 12 weeks postpartum. Both control groups will undergo US of the liver at 14 weeks of gestation to exclude HCA lesions in the liver. All groups will be asked to fill out quality of life related questionnaires at 14, 20, 26, 32 and 38 weeks of gestation and 6 and 12 weeks postpartum. We established a website which allows hepatologists, surgeons and gynecologists to submit clinical data in an online database.

## Conclusion:

The hypothesis is that pregnancy may be allowed in case of one or more known HCA  $< 5$  cm (without previous intervention), because HCA  $< 5$  cm will not disturb the course of pregnancy. Our main point of interest is whether it is justified to deny a young woman a pregnancy. With this study we hope to obtain information about the behaviour of HCA during pregnancy and the impact of HCA during pregnancy on the life of these young women and besides to propose a decision-making model for the management of HCA during pregnancy.

## Study objective

Hepatocellular adenoma in pregnant women requires special considerations because of the risk of hormone induced growth and spontaneous rupture, due to increased levels of steroid hormones during pregnancy that may threaten the life of both mother and child. Most

experts advocate that women with hepatocellular adenoma should not get pregnant or advise surgical resection before pregnancy. We recently proposed not to discourage all women with hepatocellular adenoma from pregnancy, based on a study in which we monitored twelve women with documented hepatocellular adenoma during a total of 17 pregnancies. In 4 cases hepatocellular adenomas grew during pregnancy, requiring a Caesarean section in 1 patient (2 pregnancies) and radiofrequency ablation in 1 case during the first trimester of pregnancy. All pregnancies had an uneventful course with a successful maternal and fetal outcome. However, there is no evidence-based algorithm for the evaluation and management of hepatocellular adenoma during pregnancy, due to scarcity of cases. The conclusion not to discourage all women with hepatocellular adenoma from pregnancy has, however, to be proven in a large multicentre study in which we will closely monitor pregnant patient with a hepatocellular adenoma in a prospectively acquired database to give more insight in the behaviour of hepatocellular adenoma during pregnancy.

### Hypothesis:

Pregnancy may be allowed in case of one or more known hepatocellular adenoma < 5 cm (without previous intervention), because hepatocellular adenoma < 5 cm will not disturb the course of pregnancy.

### Disrupted course of pregnancy:

1. Interventions during pregnancy (radiological and/or surgical intervention);
2. Anxiety in patients during pregnancy related to the presence of HCA in the liver and possible growth during pregnancy.

### Study design

14 (+/- 3) and 20 and 26 and 32 and 38 weeks of gestation and 6 and 12 weeks postpartum.

### Intervention

During their pregnancy hepatocellular adenoma (HCA) patients will be closely monitored by means of repetitive ultrasound (US) (and MRI in case of growth of the lesion) at 14 (+/- 3) and 20 and 26 and 32 and 38 weeks of gestation and 6 and 12 weeks postpartum. At the same days both control groups will be asked to fill out the SF-12 and EQ-5d questionnaire at 14 (+/- 3) and 20 and 26 and 32 and 38 weeks of gestation and at 6 and 12 weeks postpartum. The study group will be asked to fill out the SF-12, EQ-5d, STAI-6 and IES questionnaires before and one week after US of the HCA lesion(s). Both control groups will undergo US of the liver at 14 (+/- 3) weeks of gestation to exclude HCA lesions in the liver. At 14 and 32 weeks of pregnancy all patient groups will undergo venapunction.

## Contacts

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## Eligibility criteria

### Inclusion criteria

Study groep:

1. Properly Dutch speaking, pregnant patients;
2. 18 years of age or older;
3. A radiologically and/or histologically proven diagnosis of hepatocellular adenoma. Radiological diagnosis of HCA will be based on contrast enhanced magnetic resonance imaging. Lesions must not exceed 5 cm;
4. Informed consent must be signed.

First control group:

1. Properly Dutch speaking, healthy pregnant patients;
2. 18 years of age or older;
3. Without hepatocellular adenoma (presenting at the practicing midwife);

4. Informed consent must be signed.

Second control group:

1. Properly Dutch speaking, pregnant patients;
2. 18 years of age or older;
3. Diabetes Mellitus (presenting at the obstetrician);
4. Informed consent must be signed.

## Exclusion criteria

Dementia or impaired mental function that would counter the understanding of giving informed consent.

## Study design

### Design

Study type:	Observational non invasive
Intervention model:	Parallel
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

### Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-11-2011
Enrollment:	50
Type:	Anticipated

## Ethics review

Positive opinion

Date: 23-08-2011

Application type: First submission

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

No registrations found.

### In other registers

Register	ID
NTR-new	NL2888
NTR-old	NTR3034
Other	METC Erasmus MC : 2011-176
ISRCTN	ISRCTN wordt niet meer aangevraagd.

## Study results

### Summary results

N/A