Treating HAE during pregnancy



Dr. Danny Cohn

ACARE Center Amsterdam UMC

University of Amsterdam

Netherlands

Disclosures

• Speaking and/or consultancy fees from Biocryst, CSL Behring, Ionis Pharmaceuticals, KalVistaTakeda, Pharming, Pharvaris and Sanofi/Genzyme

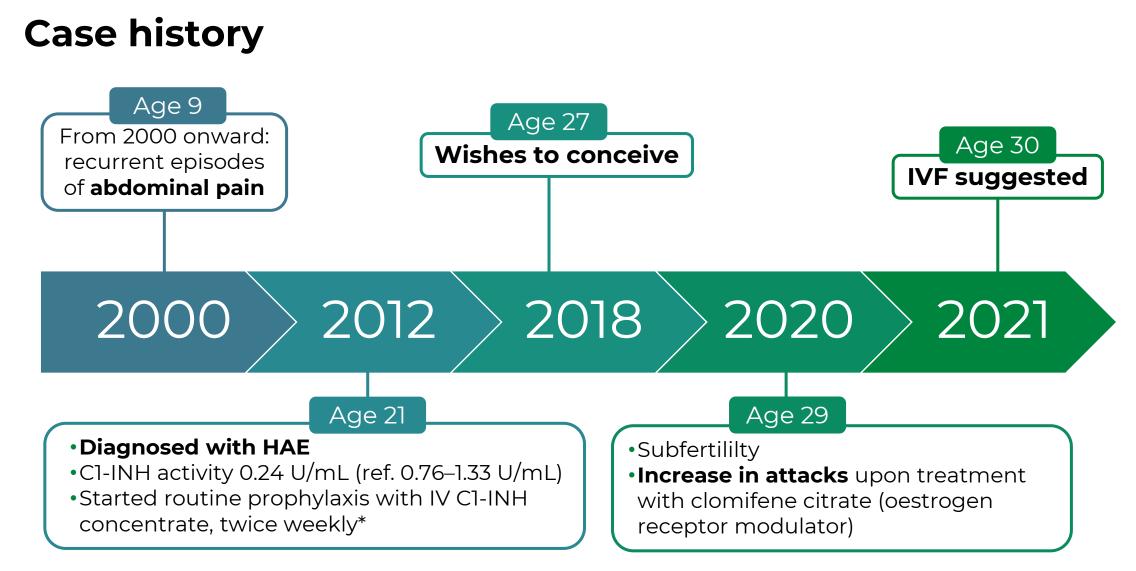
Disclaimer

- The views, information or opinions expressed herein are those of the speaker; they do not necessarily reflect those of CSL Behring
- Slides may contain off-label content

Patient case

- 30-year-old female with HAE
- Frequent **abdominal attacks** despite routine prophylaxis with IV C1-INH concentrate*
- Wish to conceive
- Emotional distress

*The use of intravenous C1 inhibitor for long-term prophylaxis is dependent on manufacturer's Summary of Product Characteristics



*The use of intravenous C1 inhibitor for long-term prophylaxis is dependent on manufacturer's Summary of Product Characteristics

Conflicting treatment goals in pregnancy

IVF/pregnancy

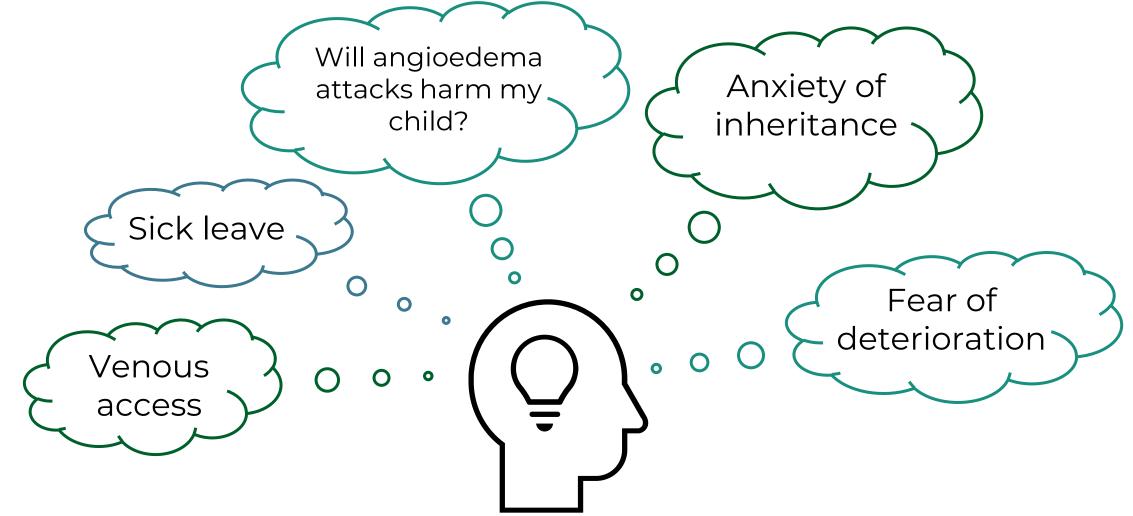
- Stimulation of ovulation may induce angioedema attacks
- Emotional distress may even further evoke angioedema attacks
- Treatment options limited to pdC1-INH concentrates

Improved HAE control

- More treatment options available for both prophylaxis and acute treatment
- Aimed at reduced oestrogen levels

12 HAE, hereditary angioedema; IVF, in-vitro fertilisation; pdC1-INH, plasma-derived C1-esterase inhibitor

Patient's concerns regarding IVF and pregnancy



Poll: Which strategy would you recommend for this patient?

- A. Increase dose of IV C1-INH concentrate
- B. Reduce dosing interval of IV C1-INH concentrate
- C. Consider other route of administration of C1-INH concentrate
- D. Refer to psychologist with HAE expertise
- E. Wait and see

Course 2021

- IVF postponed
- Continued angioedema attacks despite frequent IV C1-INH concentrate use
- Poor disease control (AECT 7)



Course 2021

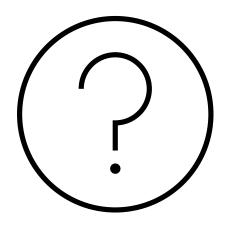
- IVF postponed
- Continued angioedema attacks despite frequent IV C1-INH concentrate use
- Poor disease control (AECT 7)

- Compassionate use of SC C1-INH granted
- 2 minor attacks in three months, AECT improved (AECT 14)
- Increased confidence in HAE course during a future pregnancy

*According to the Summary of Product Characteristics of SC C1-INH (Berinert[®] 2000/3000) or IV C1-INH (Berinert[®] 500/1500), there are limited data that suggests no increased risk from the use of C1-INH products in pregnant women

Question to the panel

What special recommendations do you have for an individualised care plan regarding pregnancy and delivery?



Individual care plan

<u>م</u>	Notitie-editor
☆ Trebuchet MS 🔹 11 🔹 B I 🛓 🔹 🎂 ち 😰 🛨 SmartText invoegen 🖻 😓 👄 🛼 🏈	
Hereditary Angioedema Care Plan	
Date of registration:	04 november 2021
Treating physician AMC:	Danny Cohn
Diagnosis: Laboratory investigations:	Hereditary angioedema with C1-inhibitor deficiency C1 inhibitor activity 0.14 IU/mL (Ref. 0.63-1.82 IU/mL); c.1424dupA in exon 8 of <i>SERPING1</i> gene (heterozygous)
Angioedema attacks action plan: Emergency treatment: C1-INH concentate XX Units, administer slowly intravenously, repeat if necessary Short term prophylaxis (prior to aan invasive procedures): C1-INH concentrate XX Units intravenously Long term prophylaxis: C1-INH concentrate 60 U/kg subcutaneously, twice weekly	
<u>Please note:</u> Antihistamines, corticosteroids and adrenline are <i>ineffective</i> treatments of hereditary angioedema attacks	
<u>Delivery plan:</u> In hospital delivery because of increased risk of angioedema attack No need for additional prophylaxis with uncomplicated vaginal delivery. In case of assisted delivery or caesarean section: please see "short term prophylaxis"	
Contact detailsEmergency:020-123456789During office hours:06-12345678Outside office hours:020-123456789	9 / pager 12345 9 / pager 12345

Delivery and HAE

In-hospital delivery recommended

No need for preprocedural prophylaxis if unassisted vaginal delivery

Acute treatment readily available



Take-home messages

IVF and pregnancy may increase angioedema attacks for multiple reasons:

- Emotional distress
- Stimulation of ovulation
- Increased oestrogen levels

HAE treatment options are limited to pdC1-INH concentrate in pregnancy

Personalised treatment and delivery plan highly recommended