Prof Yajnik presents to RDH Grand Rounds

The NT Diabetes in Pregnancy Partnership was privileged with a visit from Professors Yajnik and Phillips in April who contributed to a one day symposium focusing on the long term implications of the intrauterine environment for babies.

Thin-Fat Babies
Prof Yajnik’s research has highlighted numerous risk factors for developing insulin resistance and type 2 diabetes. These include the ‘thin-fat’ body type (with a low body mass index despite carrying high levels of fat at the center of the body), which places Indian populations at high risk. Using a variety of methods, including in-depth studies of hard-to-reach communities in rural villages and urban slums, Prof Yajnik has amassed a body of evidence linking the ‘thin-fat’ body type to the nutrition of mothers during pregnancy.

Non-Communicable Diseases of the ‘Bottom Billion’
Prof Phillips’ research program has centered on the developmental origins of type 2 diabetes, the metabolic syndrome and related conditions. In recent years Prof Phillips has developed an interest in the neglected non-communicable diseases prevalent in rural sub-Saharan Africa, particularly in Ethiopia.

Aboriginal Birth Cohort
Above: A/Prof Sue Sayers added a local flavour to the day by presenting findings from the ABC Study; a longitudinal study about the health and wellbeing of 686 babies recruited in the late 1980’s.

Case Study – 5 year old diagnosed with Type 2 Diabetes
The day highlighted the vital aspects of maternal nutrition during pregnancy and how prevention of chronic disease needs to occur as early as possible in the lifespan. The recent article published in the lancet (www.thelancet.com Vol 383 April 5 2014) about a 5 year old child diagnosed with type 2 diabetes in far north Queensland brought the message ‘closer to home’. The case study describes how a woman attended her routine diabetes appointment and during the appointment discussed her concerns for her daughter to the health professional. On further investigation the health professional noted that the mother had a history of poorly controlled diabetes in pregnancy which resulted in the birth of her daughter by caesarean section with a birth weight of over 4kg. Further clinical investigations into the health of the child confirmed a diagnosis of type 2 diabetes.

The case raises questions about what might the management of children with type 2 diabetes look like, how and when we should screen? How can we prevent this in the first place? Professors Phillip and Yajnik suggest that maternal health is the key.
The partnership has been very focused on early testing for diabetes and management of glucose during pregnancy but we need to be much broader in our approach if we aim to make a difference to maternal and child health in the future. Pre-pregnancy care and post-natal follow up of the mother and baby are to be a priority in the on-going work of the NT Diabetes in Pregnancy Partnership.

**CLINICAL REGISTER**
There has been an increase in referrals from health clinics and we now have over 700 women referred to the clinical register. The first regional meeting in the Top End is scheduled for August 22nd – look for feedback from the group next newsletter. If you would like further information about accessing or referring to the NT DIP Clinical Register please contact Cherie.Whitbread@nt.gov.au or your local diabetes educator for details about the clinical register.

**CLINICAL UPDATE - GUIDELINES**
The roll out of the national guidelines for the diagnosis of gestational diabetes as recommended by the Australian Diabetes in Pregnancy Society (ADIPS) continues to be a ‘talking point’. Concerns have been voiced about reports from the laboratory using different diagnostic values. Good news finally! **There is consensus about the diagnostic values and these shall be reported by the labs from 1 January 2015.**

The OGTT diagnostic values recommended in the guidelines are that only one of the values below are required for the diagnosis of gestational diabetes:

<table>
<thead>
<tr>
<th>Time</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting</td>
<td>≥ 5.1</td>
</tr>
<tr>
<td>1 hr</td>
<td>&gt; 10.0</td>
</tr>
<tr>
<td>2 hr</td>
<td>≥ 8.5</td>
</tr>
</tbody>
</table>

Remember, for any concerns or queries about management of diabetes in pregnancy, endocrinologists (RDH & ASH) obstetricians and diabetes educators at RDH, GDH, ASH and KDH are available to take your call.

**PANDORA NEWS**
Over 500 women have joined the study and are now able to join our PANDORA participant Facebook page. This year recruitment is continuing, along with following up the women and their babies at 6 weeks, 6 months and 2 years. Last month, A/Prof Louise Maple-Brown was invited to present to RANZCOG Indigenous Women’s Health Forum in Adelaide, and in March presented an update to Grand Rounds at RDH with regards to the current cohort suggesting an increased number of Indigenous women with type 2 diabetes in pregnancy. Birth outcomes differ for Type 2 DIP vs GDM, with higher rates for Type 2 of: caesarean section, birth weight > 4000gm LGA, severe adverse event, major congenital malformation and admission to SCN. For further publications regarding PANDORA please see our web page: [www.menzies.edu.au/diabetesinpregnancypartnership](http://www.menzies.edu.au/diabetesinpregnancypartnership)

**Central Australia**
Welcome to Piper Dawn Hammond born 10 April 2014 - Our 100th PANDORA baby to be born in Alice Springs! The PANDORA staff celebrated with a DANCE party to mark the occasion (yes there was cake). Alice Springs continue to recruit steadily and are looking forward to catching up with many of the mothers and babies during follow-up.

*Piper with mum Vanessa and ASH midwife Jenny Kenna*

**DIARY DATES**

- **23-24th October 2014**
  - Baker IDI Heart and Diabetes Institute Annual Symposium, Alice Springs
  
  *Includes NT DIP Partnership topics and meetings on the 24th.*