**Abstracts**

**32** www.thelancet.com

**Major structural birth defects in children aged 0–2-years in the Gaza Strip: a cross-sectional study**

*Abed Yehia 1, Nabil Al Barqouni 2, Paola Manduca 3, Mofeed Mokhallati 4, Awny Naim 5, Roberto Minutolo 6*

Background No information is available about the prevalence, phenotypes, and regional differences in major structural birth defects in children aged 0–2 years in the Gaza Strip, occupied Palestinian territory (oPt). As part of a wider reproductive health initiative that includes the introduction of uniform recording protocols in the main paediatric facilities in the Gaza Strip and the management of major structural birth defects, we undertook this study to identify and report missing information.

Methods Our study population was selected from all patients aged 0–2 years with major structural birth defects who were referred for surgery during the first 6 months of 2010 to one of the five main paediatric hospitals (Nassr, Rantissi, Dorra, European Gaza Hospital, and Emirati) or to one of two paediatric surgical departments (Al-Shifa and European Gaza Hospital) in the Gaza Strip. Of these referrals, those with major structural birth defects (congenital heart disease, and renal, gastrointestinal, and CNS anomalies) were selected by the paediatrician for inclusion. From the children’s records, we obtained the demographic details, risk factors associated with birth defects, family history of birth defects, and type of congenital anomalies noted during clinical examination by a skilled neonatologist and in subsequent investigations. We classified birth defects according to the primary defect, using International Statistical Classification of Diseases and Related Health Problems 10th Revision as a reference. We used a specially prepared form for recording the abstracted data, which were then analysed with SPSS (version 13.0). We obtained medical ethics approval for the study from the Helsinki Committee, Gaza Strip.

Findings Of 5254 children referred to one of the paediatrics hospitals, 331 (6%) had major structural birth defects. A further 58 children were referred directly to one of the surgical units. Of 331 reported major birth anomalies, the most frequent were heart (148 [45%]), renal (49 [15%]), gastrointestinal (43 [13%]), and CNS and neural tube defects (40 [12%]). The estimated overall prevalence of severe structural birth defects was eight per 1000 in children aged 0–2 years. We noted significant regional differences in prevalence of birth defects—the highest prevalence was reported in the north of the Gaza Strip (nine per 1000) and the lowest in Khan Younis (three per 1000; p=0·009).

Interpretation Some types of major structural birth defects might have been under-represented in our survey (such as those affecting the eyes and ears) because some children were treated abroad. However, the data we have presented will provide a baseline for future monitoring of the frequency of major structural defects in the Gaza Strip.

Funding Italian Cooperation.

**Contributors**

All authors contributed equally.

**Conflicts of interest**

We declare that we have no conflicts of interest.

**Acknowledgments**

We thank the Italian Cooperation for pooling resources to invest in the study; the Ministry of Heath for its help in undertaking the study, particularly Samir Abo Draz and Said Salah; and the field work team for their full commitment without which this study would not have been completed.

Published **Online** October 8, 2012

1**Al Quds University, Gaza Strip, occupied Palestinian territory** (A Yehia DrPH)**;**

**2Nassr Paediatric Hospital, Gaza Strip, occupied Palestinian territory**  2N Al Barqouni

**3Department of Genetics, University of Genoa, Genoa, Italy** (Prof P Manduca PhD)**;**

**4Faculty of Medicine, Islamic University of Gaza, Gaza Strip, occupied Palestinian territory** (M Mokhallati FRCS)**;**

**5Palestinian Energy Authority, Gaza Strip, occupied Palestinian territory** (A Naim MSc)**;**

**6Department of Nephrology, Second University of Naples, Naples, Italy** (R Minutolo MD)

Correspondence to: Dr**[**Nabil Al Barqouni, Nassr Paediatric Hospital, PO Box 108, Gaza Strip, occupied Palestinian territory **nbarqouni@moh.gov.ps**