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Down syndrome screening in Nigeria

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KEYWORDS
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Prenatal screening for Down syndrome is not routine in many antenatal clinics in Nigeria. Therefore, most women do not benefit from this service. This in unlike the practice in many developed countries, where screening is widely incorporated into antenatal programs. Obstetricians usually provide policy direction for safe antenatal practice for all providers of prenatal care. Their knowledge and practice is important for the successful incorporation of Down syndrome screening into routine antenatal practice.

A questionnaire-based survey (Table 1) confirmed that most of the practicing obstetricians in Nigeria are based in public health institutions, and are Fellows of either the Nigerian or West African postgraduate colleges. There was a statistically significant correlation between college fellowship and acceptance of Down syndrome screening ($P>0.05$). Obstetricians with standard screening protocol, who counseled and screened routinely in their practices, were Fellows of Royal Postgraduate Colleges. This observation might justify a review of the curriculum in local postgraduate colleges, with a greater emphasis on prenatal medicine. It is

Table 1 Education, knowledge and practice of Down syndrome screening in Nigeria

Parameters	Response	%
Source of education/knowledge	($n=168$)	
PG training	78	46.4
Journal publications	18	10.7
Publication	–	–
Other	72	42.9
Adequacy of PG training	($n=168$)	
Below average	66	39.3
Average	45	26.8
Above average	57	33.9
Routine antenatal counseling	($n=168$)	
Yes	18	10.7
No	150	89.3
Standard prenatal screening protocol	($n=168$)	
Yes	12	7.1
No	156	92.9
Method of screening	($n=15$)	
Nuchal translucency	6	40.0
Maternal serum biochemistry	9	60.0
Integrated (NT/MSB)	–	–
Reasons for lack of screening services	($n=168$)	
Not well informed about DS	30	17.9
DS not important for routine screening	42	25.0
Concerns about women's compliance	18	10.7
Concerns about cost of screening	60	35.7
Other (no established protocol in units)	6	3.6

Abbreviations: PG, postgraduate; DS, Down syndrome.

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also a justification for improved collaboration between local and foreign colleges to enhance exchange of ideas and uptake of advances in medical practice.

Among the few obstetricians who conducted Down syndrome screening, second trimester maternal serum biochemistry was the preferred method over more recent methods such as the nuchal translucency (NT) scan [1]. This is probably because the NT scan has only recently been introduced in Nigeria. At the public institutions where the majority of obstetricians practice there is often delay in the introduction of newer medical techniques. The additional cost of screening is another important factor for the non availability of the service in most centers. This is a reflection of the effect of low socioeconomic status on the utilization of maternity services [2].

It has been demonstrated that women in Nigeria are favorably disposed to first trimester prenatal diagnosis services where available [3]. Many more personnel and centers should be encouraged to provide first trimester screening, and the NT scan may be the most feasible. It requires no laboratory support and has the potential advantage that other major congenital abnormalities can be ruled out at the same time. With an incidence of 1 in 865 live births in Nigeria [4], it is important to improve professional and public awareness of Down syndrome prenatal screening options.

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Multiple myeloma presenting as vertebral compression during pregnancy

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Multiple myeloma is rare under the age of 40. The presentation of multiple myeloma during pregnancy is also extremely unusual. Thirteen cases of multiple myeloma during pregnancy have been reported worldwide [1]. To our knowledge this is the first reported case of multiple myeloma with pathologic fractures of vertebrae in pregnancy.

A 32-year-old woman was referred at 31 weeks of gestation for severe back pain that had developed after a fall. The patient's prenatal course was otherwise uneventful. Back pain was so severe that the patient could not walk without a cane or lie flat on a bed. Radiographs and magnetic resonance images (MRI) demonstrated compression fractures of the L1 and L2 lumbar vertebrae (Fig. 1). The neurosurgeons recommended further evaluation and treatment after delivery. A cesarean delivery at 32 weeks of gestation was performed after injecting dexamethasone intramuscularly. Cesarean was chosen because of unfavorable cervix and the patient's inability to deliver vaginally due to the severe pain. The neonate weighed 2210 g and had no congenital abnormalities.

Six days postpartum, percutaneous ballooning and kyphoplasty were performed. During surgery many more fractures of the lumbar vertebrae were found by mobile X-ray imaging (C-arm OEC 9800; GE Healthcare, Chalfont St Giles, UK), which led to further evaluation to determine the underlying disease.

Laboratory analysis showed anemia with a decreased hemoglobin level of 8.5 g/dL. Serum and urine protein electrophoresis demonstrated a monoclonal component in

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