CLINICAL IMAGES

Soft-tissue tumour of the fetal thigh

L Govender, J Moodley

The prenatal diagnosis of fetal tumour using ultrasound has been described only in the last 2 decades. Although fetal tumours are rare, prenatal detection plays an important role in understanding the natural history and pathophysiology, which may be associated with serious illness or even death in the perinatal period.

Case report

A 36-year-old primigravida presented initially at 23 weeks' gestation. Since she had booked late, prenatal screening for chromosomal abnormality was not performed. The pregnancy had been conceived spontaneously and all routine antenatal blood tests were normal and a screen for diabetes was negative. At a follow-up visit 4 weeks later ultrasound examination showed that the fetal right thigh appeared swollen, which was confirmed at our unit. A uniformly inhomogeneous mass measuring 3 x 4 x 6 cm was measured on the inner aspect of the right thigh (Fig. 1). On colour Doppler, a vascular pedicle thought to represent the 'feeder vessels' appeared to connect to the mass. Apart from the right femur being laterally displaced the rest of the fetal anatomy appeared normal, and echocardiography was unremarkable. The female genitalia and bladder appeared normal, there were no markers of aneuploidy or evidence of hydrops and the liquor volume was on the upper side of normal. A normal 3-vessel cord was identified and the umbilical artery Doppler was also normal. Our differential diagnosis for this soft-tissue tumour of the fetal thigh included sarcoma, haemangioma and congenital myofibromatosis.

The couple were informed and counselled on the likelihood of their unborn child having a tumour of the right thigh.

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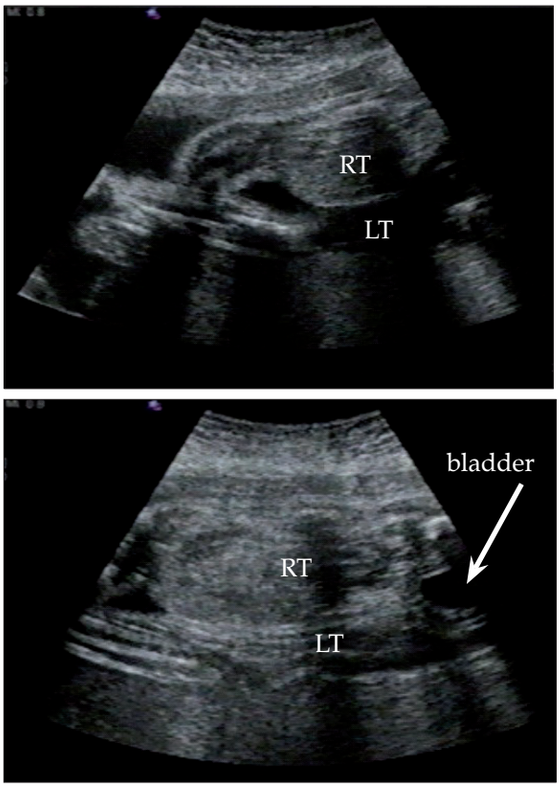

Fig. 1. Sonographic images of the fetal thigh at 30 weeks'(left image) and 36 weeks' gestation (right image) demonstrating the soft-tissue swelling in the medical aspect (RT = right thigh; LT = left thigh).

Magnetic resonance imaging (MRI) confirmed the soft-tissue swelling of the right fetal thigh and a sarcoma was considered most likely. The couple were offered rapid fetal karyotyping with possible ultrasound-guided fetal muscle biopsy, but declined invasive testing. A 2 600 g infant was delivered by elective caesarean section at 37 weeks' gestation. A large tumour mass on the right thigh of the baby was present at birth (Fig. 2). Postnatal imaging of the right thigh was suggestive of haemangioma with large feeder vessels. The tumour was excised and histological analysis confirmed haemangioma.

Discussion

A Medline search revealed 3 case reports[1-3] of prenatally diagnosed haemangioma of the fetal thigh, 1 case report on lymphangiohaemangioma of the fetal thigh[4] and 1 case

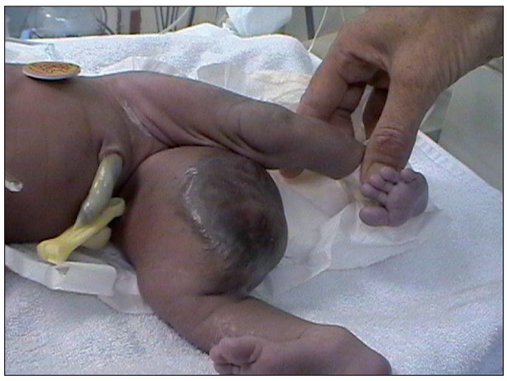

Fig. 2. Day 3 postnatal image of the swollen fetal right thigh.

report on congenital fibrosarcoma of the fetal thigh.[5] Tumours have been described according to their location on the body, e.g. head and neck, face, abdomen and retroperitoneum, skin, genitalia, sacrococcygeal region as well as tumours of the extremities.[6] Differential diagnosis for tumours of the extremities includes: (*i*) vascular haematosis; (*ii*) haemangioma; (*iii*) lymphangioma; or (*iv*) sarcomas.[7]

The sonographic diagnostic approach for diagnosing fetal tumours *in utero* is based on three sets of signs, viz. general, organ-specific and tumour-specific signs.[6] Polyhydramnios is an important general sign for fetal tumours, occurring in about 50% of cases. MRI in the third trimester may be a useful alternative method. Rapid karyotyping should be evaluated in all cases of suspected fetal tumours, since malignant tumours can acquire chromosome changes.[6] Fetal tissue biopsy may be considered when ultrasound diagnosis is uncertain and histological analysis will provide the ultimate diagnosis.[6]

The prognosis for fetal tumours includes factors such as the extent of tumour involvement of other organs, associated mechanical problems and proximity to vital organs or structures, and gestational age. Parents should be counselled and given the option of termination of pregnancy if the tumour is detected before 24 weeks' gestation although this option may pose an ethical dilemma in the absence of other life-threatening anomalies. In the case of continuing pregnancy, the risk of preterm delivery should be weighed against the need for urgent surgical intervention or relief of vitally compressed structures.

1. Suma V, Marini A, Gamba PG, Luzzatto C. Giant hemangioma of the thigh: Prenatal sonographic diagnosis. *J Clin Ultrasound* 1990; **18:** 421-424.
2. Gonçalves LF, Pereira ET, Parente LM, Vitorello DA, Barbosa UC, Saab Neto JA. Cutaneous hemangioma of the thigh: prenatal diagnosis. *Ultrasound Obstet Gynecol* 1987; **9:** 128-130.
3. Sheiner E, Gohar J, Mazor M. Prenatal diagnosis of giant hemangioma of the thigh. *Int J Gynaecol Obstet* 1999; **67:** 175-176.
4. Gonçalves LF, Rojas MV, Vitorello D, Pereira ET, Pereima M, Saab Neto JA. Klippel-Trenaunay-Weber syndrome presenting as massive lymphangiohemangioma of the thigh: prenatal diagnosis. *Ultrasound Obstet Gynecol* 2000: **15:** 537-541.
5. Tadmor OP, Ariel I, Rabinowitz R, *et al*. Prenatal sonographic appearance of congenital fibrosarcoma. *J Clin Ultrasound* 1998; **26:** 276-279.
6. Meizner I. Introduction to fetal tumors. © Meizner **www.TheFetus.net**. 2000
7. Meizner I. Tumors of the extremities. © Meizner **www.TheFetus.net**. 2000

LETTER FROM PAKISTAN

Misunderstanding Muslims

Peter Baillie

Having been on a business trip to London in early July 2005, I was struck by the total dichotomy of perception on my return to Pakistan. Is any press unbiased?

In the UK the response was far more muted than the outraged response to the 9/11 episode in the USA, and the national mood was one of business as usual. No one was going to interfere with the British way of life – even Hitler could not accomplish that. The episode was blamed on extremists and much attention was focused on the process of radicalisation among British minorities and political asylum seekers. Although Islam was not specifically blamed, attention was centred on Muslim youth.

It is noticeable that even the muted British response did not realise the contradiction inherent in the short-term goal of preventing bombing and the long-term strategy of winning hearts and minds. The short-term goal is dominant at present, as in the more vociferous USA, leading to the inconvenience and disaffection of the large majority of peaceful Muslims who feel targeted – hardly the way to win hearts and minds.

What is left to the ordinary citizen in a world dominated by the actions of extremists? Perhaps the best solution is to be militant about moderacy – almost oxymoronic!

Although the deaths were regretted, in Pakistan the general opinion was that Tony Blair and George Bush had brought

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events upon themselves, and even further back, that Americans had fostered the Taliban against the Russian invasion of Afghanistan. To make sense of this, it is important to understand the broad sweep of history, which I have referred to in a previous letter.[1] A very diverse Islam is undergoing a confrontation within itself similar to the one Europe underwent 600 years ago with the overturning of feudalism, ending of the unholy alliance between the church and state, and release from overwhelming ignorance. The printing press broke this rigid Catholic Church conservatism, although the process lasted several hundred years and cost millions of lives. It ended finally in Western democracy that emphasised the individual and the separation of religion from the state – which is still causing problems in the USA.

This same process is now occurring in the Muslim world with conservatives ('extremists') confronting progressives who wish to have democracy and what is considered to be social justice. It should be realised that despite its economic advantages, Western democracy is viewed as very imperfect with extremely negative effects on the family and religion. Consequently an Islamic democracy that stresses the Ummah (or community) rather than the individual and that combines the church and state (George Bush?) is seen as superior. How the British or Americans expect a Western-style democracy in Iraq, borders on the insane.

Another force that has escaped the Western radar is that ongoing attempts to integrate social conditions and improvements within a didactic and more rigid religious outlook have been underway for a century. Which one will succeed will determine the adaptation of Islam to the modern world. The central fact is that it will come from Islam and not be imposed from outside. It may take centuries to achieve, exactly as it did in the Christian world. The only important lesson is that extremism is destructive. As Tacitus pointed out, by AD100 more people had been killed because of faith than all other causes put together. With the passage of time we have simply got better at this process. Indulging in omphaloskepsis, is it not strange that the three major monotheistic religions have their own God who supports their own faithful adherents to the exclusion of all others? Even St Francis of Assisi propounded this. This strongly suggests the hand of man rather than God. Humans have never been able to deal with complexity.

Islamic attempts to deal with the complexity of social integration into religion are evolving in several ways, largely unrecognised in the West. In Egypt extremists are jailed or expelled. In Turkey, a civil society is reintegrating religion. In Iran, a theocratic society is grudgingly grappling with democracy. It is also forgotten that Iran is not an axis of evil but has made great strides in this integration with a marked decrease in population growth – a remarkable achievement. Pakistan, in fact, is attempting the most difficult path – an all-inclusive moderate civil society (including extremists). Using the same logic, it can even be said that the move towards including morality (i.e. religion) in politics is even a trend in America, as Bush is a very religious man. Iraq with an imposed Western-style democracy illustrates the overriding fact that the solution will come from Islam and will be a modified Islamic democracy, not a Western democracy. The Maldives are an exception because the islands are dependent on Western tourism.

The other important issue is that the Iraq problem started with the dismembering of the Ottoman Empire after World War I when artificial countries were created – Lebanon and Palestine/Israel are the obvious examples of the late-maturing trouble that was created (with the best will in the world). Iraq is a further example of the chickens coming home to roost, with three incompatible populations bundled together. Whether this is viable in the long term is clearly open to serious question.

What form Islamic democracy will take is dependent on the above factors, further complicated by authoritarian rule derived from the initial true caliphs who were remarkably similar to Plato's philosopher-kings – perhaps unattainable with increasing complexity.

1. Baillie P. Life and medicine in the Islamic Republic of Pakistan (Letter from Pakistan). *S Afr Med J* 2004; **94:** 955.