Highlights from this issue

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The Triumvirate

As we write this edition of Airwaves, many countries throughout the world are struggling to contain the delta variant of COVID-19. The switch to naming new variants of the coronavirus after Greek letters, rather than the geographical area where the variant was first identified, is understandable but a little hard on the Greeks. By way of recompense we devote this issue of Airwaves to the rich literature of Greek myths and legends.

CLASH OF THE TITANS

One of the first tales from Greek mythology describes how Cronos (a Titan) defeated his father Uranus and usurped his throne. However, Cronus feared the same thing would happen to him and so swallowed all his children apart from the god, Zeus. (Zeus' mother Rhea tricked Cronus into swallowing a stone instead). When Zeus grew up he led the gods into battle against the Titans. While Rhea bequeathed life to Zeus, maternal gifts to their offspring are not always beneficial. In this month's journal, Patricia de Gouveia Belinelo and colleagues (see page 996) describe data on lung function measured at 5–6 weeks from two birth cohorts: one in Switzerland and the other in Australia. They report lung function as time to reach peak tidal expiratory flow as a percentage of total expiratory time. Maternal asthma was associated with lower lung function in male babies and the authors speculate that this may increase future risk of wheezing and asthma in these children. Rhea's baby, Zeus went on to win the Clash of the Titans and then the war with the Giants, demonstrating that resilience can trump early life disadvantage (such as narrowly avoiding being eaten).

PANDORA'S JAR

Zeus continues to make trouble in the story of Pandora's jar (apparently box is a mis-translation). The jar was a gift to Pandora (the first woman) from Zeus and it contained pain, disability and death - all the miseries of mankind. Zeus instructed Pandora not to open the jar. In *Thorax* this month, Barnes-Harris *et al* (see page 989) open the 'Pandora's jar' of severe symptoms and disability at the end of life. The authors present data from 18 586 patients with lung cancer who are compared with 4279 patients who have non-malignant end-stage respiratory diseases. Patients with lung cancer died younger than those with non-malignant conditions. In the lung cancer patients, performance status 4 months before death was higher than in those with non-malignant disease. Pain-related distress was greater with cancer and

breathing-related distress more prominent with non-malignant disease. They conclude that timely access to palliative care should be based on need and not diagnosis. Pandora, as we know, could not resist the temptation to peep in the jar and she thereby released all the miseries of mankind. We are not told which Greek god initiated palliative care...

PERSEUS SLAYS THE GORGON

The gorgons included Medusa who famously had snakes coming from her head instead of hair, although it was a little hard to confirm because the mere act of looking at her would turn the onlooker to stone. While not associated with a similar magnitude of risk understanding the cellular profile of patients suffering from COVID-19 has relied primarily on inferences from the peripheral blood because of the challenges associated with obtaining Broncho-Alveolar Lavage samples for analysis. In this issue of *Thorax* (see page 1010) Saris and colleagues also slay this Gorgon and provide data on paired peripheral blood and BAL profiles from 17 patients with COVID-19 including four who, sadly, subsequently died. They found that $\gamma\delta$ T cells, T cell exhaustion markers and inflammatory mediators were higher in BAL than blood. Interestingly, T cell activation reduces with prolonged ITU stay and, in contrast with findings observed in peripheral blood, there was no evidence increased T cell activation in BAL from fatal cases. It is now crucial, having slayed the Gorgon, that these findings lead to improvements in patient care. After all the slain head of Medusa is responsible for the Atlas mountains, and the Red Sea Corals!

HERACLES EPSILON

Heracles was a resourceful soul who was given the unenviable task of achieving ten tasks, and then a further two for good measure, to expiate his fatal crime. Many of his tasks required him to be brave and strong (and quite violent to be

frank) but one was a little more cerebral. He had to clean the Augean stables in a day, sounds easy until you remember that the stables were home to 3000 immortal cattle, who produced poison faeces which hadn't been cleaned for 30 years! Some quick thinking was required! Although lacking the punitive capacity of the 12 labours of Heracles, non-invasive measurement of parenchymal lung disease requires similar resourceful solutions. In this issue of *Thorax* (see page 1040) Aaltonen *et al* describe the use of nanoparticles to undertake Airspace Dimension Assessment (AiDA – more ancient Egyptian than Greek I know) and used the technique to measure airspace radii in 618 individuals. They showed that AiDA could detect changes of between 25 and 35 μ m differences between patients with and without emphysema, given in an OR of between 16% and 22% of emphysema for every 10 μ m increase in AiDA. Hopefully this will make diagnosing emphysema easier than diverting the Alpheus and Peneus rivers to wash out the muck.

META'S ANALYSIS

Meta (Μήτις or 'beyond') was the daughter of Hoples and became the first wife of Aegeus, king of Athens. Unfortunately, they could not have children and Aegeus then married Chalciope, daughter of Rhexenor. However, Aegeus was still unable to father a child. Meta's analysis of the situation would be obvious. Less obvious is the prevalence of venous thromboembolic event (VTE) and arterial thromboembolic events (ATE) in patients with COVID-19. Tan and colleagues (see page 970) performed a meta-analysis from 102 studies, including 64 503 patients, and demonstrated a VTE, pulmonary embolism and leg deep vein thrombosis prevalence of 15%, 7.8% and 11.2%, respectively. The VTE rate in the patients admitted to intensive care was almost 1 in 4. The prevalence of ATE was lower than VTE with acute coronary syndrome and stroke rates of 3.9% and 1.6%, respectively. We will await Meta's analysis of these data.

MYTHS AND LEGENDS

Myths are stories that often have an important and meaningful message. In this month's *Thorax*, we have a teaser of a case based discussion, indeed it is a *Malteaser*. Perlepe and colleagues (see page 1057) discuss this confectionary conundrum of consolidation (figure 1F).

Figure 1

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