

# Acromegaly, Mr Punch and caricature

DAVID BRYSON

The origin of Mr Punch from the Italian Pulcinella of the Commedia dell'arte is well known but his features, large hooked nose, protruding chin, kyphosis and sternal protrusion all in an exaggerated form also suggest the caricature of an acromegalic. This paper looks at the physical characteristics of acromegaly, the origin of Mr Punch and the development of caricature linking them together into the acromegalic caricature that now has a life of its own.

## Introduction

Punch and Judy Shows are common entertainments at the seaside, fairs and for children's parties. We laugh at Mr Punch's antics without thinking about his origin. Why does he have a large nose and prominent chin? What is the reason for the hump on his back and large paunch?

## Physical features of acromegaly

Pierre Marie (1853–1940) first described acromegaly in 1885, published in 1886.<sup>1</sup> 'Acromegaly' literally means large extremities (Greek: *ἄκρον* = end or extremity, *μέγας* = large). The hands and feet are markedly enlarged as are other parts of the body, especially elongation of the lower jaw.

Acromegaly is due to oversecretion of growth hormone by the pituitary gland usually because of a pituitary adenoma. Growth hormone will induce gigantism if secreted in excess before puberty and before the bones have stopped growing, which is about the age of 17. Too much growth hormone after that age will lead to acromegaly but seldom gigantism because the long bones of the limbs have fused and cannot grow any more.

The characteristic appearance of the hands in acromegaly is due to the contrast between the giant hand and the disproportionately slender arm which bears it, sometimes increased by atrophy of the muscles. The furrows of the skin

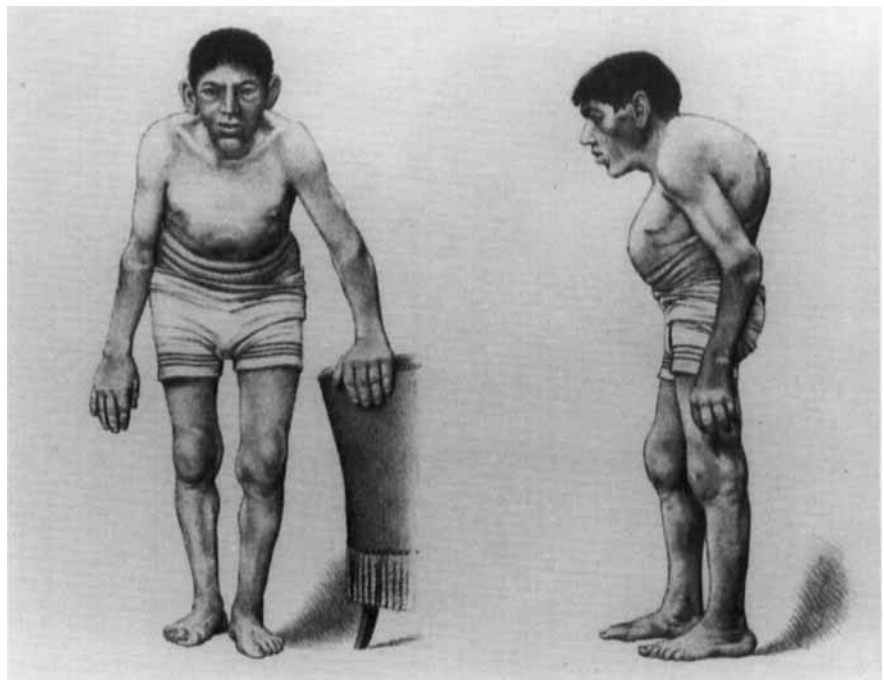
are deep, the folds puffy, fingers thick, 'like sausages', with the nails proportionately smaller in comparison. There is often curvature of the vertebral column and associated deformity of the chest. The lower part of the sternum projects forward as all bones of the chest are increased in size.<sup>2</sup>

This classic physical appearance is seen in *Figure 1* taken from a case presented, before Pierre Marie's publication, by Fritsche and Klebs in 1884.<sup>3</sup> For a fuller clinical description refer to texts such as Grossman's *Clinical Endocrinology* edited by A Grossman 1992.<sup>4</sup>

## Origin of Mr Punch

Punch is the shortened form of the English Punchinello taken from the Italian Policianelo or Pulcinella, and the French Polichinelle, a character in the Italian Commedia dell'arte.

It is generally accepted that the whole family of Italian 'maschere', masked characters of the Commedia dell'arte, derive from the principal Oscan characters of the Roman Atellan farces and that Pulcinella is the representative of Maccus, the country bumpkin or Bucco, the comic servant. There is a gap of 1000



**Figure 1** A case of acromegaly before Pierre Marie, published by Fritsche and Klebs.<sup>3</sup>

David Bryson BSc(Anatomy), CertEd, AIMI RMIP, Programme Leader, Biological Imaging, University of Derby, School of Art and Design, Green Lane, Derby DE1 1RX, UK.

years in the records between these two but the bronze statues of Maccus compare very closely with those of Pulcinella.<sup>5</sup>

The origins before Roman times are unclear but Soques<sup>6</sup> suggested that the character came from a nomadic people in various parts of the Orient, through to the Hebrews in Egypt and from there to Athens before being taken to Rome with many other aspects of Greek culture. Characters with similar forms are seen in Greek terracotta pottery<sup>7,8</sup> (Figure 2). This is also seen in a comic actor acting as a slave carrying a basket to an altar, shown on a red figure phylax vase of the 4th century BC from the Louvre in Paris,

who has acromegalic facies with a large lower jaw and protruding face.<sup>9</sup>

There continued a tradition of hump-backed and hook-nosed fools in Europe in the 16th and 17th centuries.<sup>10</sup> Punchinello (Figure 3), was introduced into England after the restoration of Charles II, who gave patronage to performances by actors in 1672.<sup>5</sup>

A revival in the 1790s led to the preservation of Mr Punch and as the use of marionettes waned so the glove puppet versions were popularised. These eventually became more children's toys (Figure 4), rather than the caricatures or satirisation that took place in the 18th century.<sup>11</sup>



**Figure 2** *Bücklinger aus einem Satyrspiel. Antike Terrakotta aus der Gegend von Smyrna, reproduced from Höllander, 1912.<sup>8</sup>*

### Development of caricature

Caricature comes from the Italian *caricare*, to overload, and was given by Annibale Carracci (1560–1609) to the sketches he made of his friends which he dubbed 'caricature'. He claimed to 'grasp the perfect deformity and thus reveal the very essence of a personality' so a picture showing exaggerations of a man's most striking features would often appear more true to life than a formal portrait.<sup>12</sup> Artists and actors have always used these techniques to good effect even before being called caricature. It is likely that the actors of the Commedia dell'arte portrayed what they saw and that the audience's response depended on this. So a caricature of the local acromegalic, a little slow, fat paunch, large nose, hump-back and strange protruding chest would certainly strike a familiar chord.

Dumas<sup>13</sup> wrote that 'L'aspect caricatural du visage de l'acromégalique offrait une pâture toute trouvée aux peintres et aux dessinateurs satiriques' and that Honoré Daumier had a special predilection for this; the tendency of the cartoonist to 'acromegalise'.

Edward Lucie-Smith<sup>14</sup> notes how during the renaissance the possibility of drawing characters to make them look grotesque reflected back to the illustration of dwarfs and pygmies in the classical period. He suggests a psychological explanation that 'Whatever was depicted was thus literally diminished and made grotesque'. The easiest person to make fun of is someone different from the 'normal', whether due to size, shape or deformity.

Caricatures in many of today's newspapers have the tendency to acromegalize their subjects, for example that of Pope John Paul II in *The Observer*<sup>15</sup> and many that can be seen every day. However, it is important to differentiate between the medical caricaturisation of an acromegalic<sup>16</sup> and the acromegalisation of the famous and infamous.

### Acromegaly and Mr Punch

Soon after Pierre Marie gave the name, acromegaly, attention was drawn to the resemblance between Pulcinella and acromegalics.<sup>6,17</sup>

A comparison between Figure 1 and Figures 3 and 4 shows the classic enlarged lower jaw, hooked nose, kyphosis and sternal protrusion of acromegalics exemplified in the over-exaggeration of these features in Mr Punch. In some early engravings Mr Punch is also



**Figure 3** Mr Punch reproduced from Cruickshank 1881.<sup>10</sup>



**Figure 4** Pulcinella as a child's toy from a carte de visite of a painting.

shown with a large paunch. This is due to the kyphosis of the spine which causes the costal margin to become more prominent and approximate more to the pelvis, resulting in the abdomen protruding forwards. These features suggest the character was used to portray the acromegalic form. Dr Leonard Mark, who wrote an autobiography of his own life as an acromegalic,<sup>18</sup> also suggested a connection between Mr Punch's hitting people over the head and the debilitating headaches untreated acromegalics suffer from.

Clinicians soon applied the epithet 'Punch-like' to their patients: "The neck was thick, and there was a general tendency to kyphosis in the upper dorsal region, and a tendency to protrusion of the lower end of the sternum, so that a Punch-like figure was developed"<sup>19</sup> and "... the sternum was pushed forward, "Pulcinello chest."<sup>20</sup> taking the characterisation full circle.

### Caricature or acromegalic caricature

It is difficult to discern whether illustrations actually show a true portrait or are caricatures. Some examples of terracotta statuettes in the collection of the Louvre in Paris, including ten acromegalics, are accurate medical illustrations of conditions,<sup>7</sup> while other examples are clearly exaggerations.

Höllander<sup>8</sup> questions whether all of the terracotta heads supposed to be of acromegalics can be given the diagnosis of acromegaly, as many are more like caricatures, following the fashion of the fool character of the Atellan comedies.<sup>21</sup> In 1915 Coues<sup>22</sup> viewed the Flemish faces in the Grimani Breviary<sup>23</sup> as possibly acromegalic. These are, however, more likely to be the natural variation in facial physiognomy and thus purely portraits of people seen by the artist in the 15th century. In the same way the hereditary anomalies of the Hapsburg and Ptolemaic lower jaws are acromegaloid not acromegalic.<sup>24</sup>

### Conclusion

The strong resemblance between acromegalics was noticed very early on: "There are very few diseases all cases of which appear to present such a strong family likeness" Hutchinson 1898.<sup>25</sup>

I can remember recognising an acromegalic for the first time when travelling on a bus as a student. It is quite likely the familial appearance of acromegalics



enhanced its popularity for caricaturists and satirists in ancient and mediaeval Europe just as its photogenicity has made it a commonly photographed subject in this century. Art mimics life too often for there not to be a grain of truth to the acromegalic origin of Mr Punch, but that does not mean that all historical acromegaloid caricatures are caricatures of acromegalics.

The history of Mr Punch has been the institutionalisation of a caricature. Continual reinforcement has entrenched the caricature so that it has taken on a life of its own beyond its origins. However, any connection between acromegalics and Mr Punch, and the risk of ridicule, is unlikely to continue in the developed world as individuals are now diagnosed and treated before the classic 'acromegalic' changes occur.

### Acknowledgements

Dundee Public Library, Ninewells Hospital and Medical School Library, Dundee, National Library of Scotland and Pickford House Museum, Derby Art Gallery & Museum for help in my research.

### References

1. Marie P. Sur deux cas d'acromégalie; hypertrophie singulière non congénitale des extrémités supérieures, inférieures et céphalique. *Rev de Med* 1886; **6**: 297–333. Transl London: New Sydenham Society, 1891.
2. Sternberg M. *Acromegaly*. London: New Sydenham Society, 1899.

3. Fritsche, Klebs E. Ein Beitrag zur pathologie des riesenwuchs. *Klinische und pathologisch-anatomische untersuchungen*. Leipzig: FCW Vogel, 1884.
4. Grossman A, ed. *Clinical Endocrinology*. Oxford: Blackwell Scientific Publications, 1992.
5. *Encyclopaedia Britannica* 1969; 866–7.
6. Soques A. Maccus, polinchinelle et l'acromégalie. *Nouv Iconogr de la Salpêtrière* 1896; **9**: 375–80.
7. Gourevitch D, Gourevitch M. Terres cuites hellénistiques d'inspiration médicale au musée du Louvre. *Presse Méd* 1963; **71**: 2751–2.
8. Holländer E. *Plastik und Medizin*. Stuttgart: Enke, 1912; 351–4.
9. Green P. *A Concise History of Ancient Greece*. London: Thames & Hudson Ltd, 1973; 155.
10. Cruickshank G. *Punch and Judy*. London: George Bell & Sons, 6th edn, 1881.
11. Ayres J. *British Folk Art*. London: Barrie & Jenkins Ltd, 1977; 56–8.
12. Toms K. *Origins of Caricature*. Museum of Newspapers and Caricature. Personal Communication.
13. Dumas P. L'acromégalie-gigantisme avant Pierre Marie. *Neurochirurgie* 1973; **19** (Suppl 2): 13–22.
14. Lucie-Smith E. *The Art of Caricature*. London: Orbis Publishing, 1981.
15. Levine D. Caricature: Pope John Paul II, *The Observer* 1982; 25th April.
16. Armstrong R. The role of caricature in medicine. *J Audiovis Media Med* 1993; **16**: 165–9.
17. De Souza-Leite JD. De l'acromégalie. Maladie de Marie. Thèse de Paris, 1890. Transl, London: New Sydenham Society, 1891.
18. Mark LP. *Acromegaly: a personal experience*. London: Baillière Tindall & Cox, 1912.
19. Ferrier D. Acromegaly. *Lancet* 1910; **ii**: 1765–6.
20. Jewesbury RC. A case of acromegaly. *Lancet* 1913; **i**: 1169.
21. Weinberg SJ. Gigantism and acromegaly. *Ann Med Hist* 1931; **3**: 650–73.
22. Coues WP. Early pictures of acromegaly. *Boston Med Surg J* 1915; **172**: 159.
23. *Das Breviarium Grimani*. (Facsimile Publication). Leyden: AW Sijtaoff, 1903–8; **14**: No 1571.
24. Wells C. The Ptolemaic Jaw. *Appl Therapeutics* 1967; **9**: 768–71.
25. Hutchinson W. The pituitary gland as a factor in acromegaly and giantism. *New York Med J* 1898; **72**: 89–100.