

## Private prescription:

A thought-provoking tonic on the lighter side

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Please note that these are the personal opinions of the author and do not necessarily represent those of AstraZeneca.

# Fortifying the over forties

The fortieth anniversary of one's birth has been, and still is, regarded by many as a significant point in one's life both in terms of social standing/career and in health/physiology. The recent attainment of this age by a colleague prompted me to do a little research on the subject.

Centuries ago, in circa 500<sub>BC</sub>, Confucius, the famous Chinese philosopher wrote [1]:

'If a man reach forty and has not made himself heard of, he is not worth regarding with respect.'

An interesting observation considering that in the modern world one is often regarded as being 'over the hill' at this age. However, it must be admitted that, according to the laws of physics, when one is over the hill one can pick up speed and many scientists have achieved far greater things in later life! It is interesting to note that all the six recipients of the Nobel prizes for chemistry and physics this year were over 40; indeed, the average age of the three physicists was 78!

One fact that cannot be hidden for long is the effect of ageing on one's body as so aptly stated by Mark DePaolis in his book *Trust Me, I'm a Doctor* [2]:

'At 40 we are suddenly able to replace only the most important cells, like heart and small intestine cells, while other things like knees and eyes have to fend for themselves. Fat cells do particularly well after 40, and our bodies will often try to use them as replacements for other parts, passing them off as a new chin or set of thigh muscles.'

Similar sentiments have been expressed by Robert Benchley (1889–1945), the American humorist [3]:

'A man of 40 today has nothing to worry him but falling hair, inability to button the top button, failing vision, shortness of breath, a tendency of the collar to shut off all breathing, trembling of the kidneys to whatever tune the orchestra is playing...Forty is Life's Golden Age.'

The receding hairline, the need for spectacles and the thickening of the waistline are common features of this age! The extended acronym of the four Fs (fair, fat, forty and female) is often used as an indication of the risk factors for gallstones.

## **Poetry**

Poetry, and especially doggerels, are a rich source of comedy and satire and it is not surprising that the age of 40 has spawned several of these. Among the most famous is that written by Ogden Nash (1902–1971) the American poet. Entitled simply as *Lines on Facing Forty*, it reads [4]:

'I have a bone to pick with Fate Come here and tell me girly, Do you think my mind is maturing late, Or simply rotten early?'

Even Shakespeare, in one of his sonnets, bemoans the age of 40 [5]:

'When forty winters shall besiege thy brow,

And dig deep trenches in thy beauty's field,

Thy youth's proud livery, so gazed on now'

Will be a tattered weed of small worth held'.

Some lines, taken from the *Journal of the American Medical Association* [6] disagree with the assertion, made by William Pitkin in 1932 in his book *Life begins at Forty*:

'They say life begins at forty, But with this I disagree That certainly isn't what happened When forty caught up with me.'

Pitkin, then a professor of journalism at the University of Columbia, was writing at a time when the problems of extended life and leisure were first beginning to be recognized. He proposed that after 40 'Work becomes easy and brief. Play grows richer and longer. Leisure lengthens'. A utopia that is generally never attained in practice!

## Treatment

A proprietary medicine that is inextricably linked to the age of 40 through its

advertising slogan that it 'fortifies the over forties' is Phyllosan, manufactured throughout the second half of the 20th century by Beechams. At the height of its popularity in the 1970s and 1980s, each tablet comprised 65 mg Ferri Phosphas (a mixture of hydrated ferrous phosphate and ferric phosphate) although this was replaced by 35 mg ferrous fumarate in the early 1980s; 8.5 mg nicotinic acid; 0.166 mg thiamine hydrochloride; 0.333 mg riboflavine and 5 mg ascorbic acid.

## 'Life begins at forty?'

How the slogan originated is open to debate but the product itself had already been on the market for many years. During World War II, it had an altogether different formula, comprising 10 mg chlorophyll, 10 mg Ferri Phosphas, 100 mg

sucrose and 50 mg dibasic calcium phosphate. The inclusion of chlorophyll is somewhat of a mystery until one realizes that the material had an official monograph in the 1934 British Pharmaceutical Codex where its uses were listed as 'possessing blood forming properties particularly when given with iron'. The product, then manufactured by Natural Chemicals (London, UK) was claimed 'to revitalize the blood and fortify the heart, relieve arterial tension, improve the circulation, strengthen the nerves, stimulate metabolism and increase the vital forces' [5]. Ideal for the ravages of

#### Final words

Two centuries after Confucius, Mencius, another Chinese philosopher wrote [7]:

'At forty I attained an unperturbed mind'.

Surely, for all you pre- and post-40 youngsters, this is worth waiting for. Throw away the Phyllosan and enjoy life!

#### References

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- 3 Daintith, J. and Isaacs, A. (eds) (1990) Medical Quotations, Collins, London
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- 5 Armstrong, J. (ed.) (1999) The Arden Dictionary of Shakespeare Quotations, Thomas Nelson & Sons, Walton-on Thames
- 6 Kitchen, B.G. (1964) Debunking the bunk. J. Am. Med. Assoc. 188, A234
- 7 The Extra Pharmacopoeia, Martindale (1943) 22nd Edition, Pharmaceutical Press, London

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## Polymers – a synthetic or natural choice? \(\nbeggre{V}\)

The recent paper in Drug Discovery Today by Hunter and Moghimi [1] highlighted many issues -biological and pharmacological activity together with immunotoxicity - that are related to synthetic polymers and polymer

conjugates, which are a consuming concern. This paper suggests that the quality of the work that we apply to these issues could be raised, and the resultant 'benefit' to the patient is a mutual objective.

However, any interventive procedure, surgical or pharmacological, is subject to detailed and continual risk-benefit evaluation. Synthetic polymers seem to

be presented negatively in this article, although the issues raised are significant, the 'benefit' to patients that polymers offer with respect to drug delivery is largely ignored. Indeed, Peginterferon a-2a plus ribavirin is linked to a lower rate of troublesome side effects depression, flu-like symptoms (chills, headache and fever) - than the standard interferon and ribavirin treatment in the care for chronic hepatitis C patients [2].

It is stated that, in opposition to polydisperse synthetic polymers, endogenous biopolymers, when synthesized in vivo, are monodisperse with an absolutely defined structure, biological function and fate. This statement appears to neglect that polymers in vivo are synthesized as a process and, hence, many intermediate forms of the monodisperse end-product are also present in biological systems. We should not ignore the numerous mechanisms (e.g. glycosylation, phosphorylation, sulfation, deacylation,