



Random Thoughts on William Shakespeare and Medicine

KV Sahasranam MD, DM, FACC

Baby Memorial Hospital, Kozhikode, Kerala, India. PIN: 673004

Address for Correspondence: Prof. Dr. KV Sahasranam MD, DM, FACC, Senior Consultant Cardiologist, Baby Memorial Hospital, Kozhikode, Kerala, India. PIN: 673004. E-mail: ramani2911@gmail.com

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Medicine and literature have always been connected over the ages. William Shakespeare (1564-1616) is no exception. There are plenty of references to medicine and diseases in the works of Shakespeare. The knowledge which Shakespeare has of medical conditions is much more than is expected of a common man. This is attributed to his association with practitioners of his time and reading of contemporary texts in medicine. Also his son in law Dr. John Hall who married Susanna, Shakespeare's eldest daughter would have contributed substantially to the knowledge of medicine in Shakespeare's compositions. Surgery at the Elizabethan times was well known and is reflected to a large extent in his plays [1].

There were many diseases known in the days of Shakespeare and have a mention in his plays. "Now the rotten disease of the south (*Syphilis*) guts-gripping (*colic*), ruptures (*hernia*), catarrh (*rhinitis*), lethargies (*stroke*), raw eyes (*conjunctivitis*), dirt-ridden liver (*cirrhosis*), wheezing lungs (*COPD / asthma*), bladder full of imposthume (*bladder stones*), sciaticas (*osteoarthritis lumbar spine*), lime-kilns in the palms (*palmar arthritis / gout*), incurable bone ache and take against such preposterous discoveries' [Troilus and Cressida 5.1. 17-21]. The above account describes most of the illnesses found in Shakespeare's England.

William Harvey is credited with the discovery of the circulation of blood in 1616, when he gave the Lumleian lecture to the London College of Physicians on the subject. But there are indications that this concept was known even before and has been reflected in Shakespeare's play *Julius Caesar* where Brutus says to Portia: "You are my true and honorable wife, as dear to me as are those ruddy drops that visit my sad heart" [Julius Caesar: 11.1. 288-290].

In the play *Othello*, Iago, the villain says: "Not poppy not mandragora nor all the drowsy syrup of the world shall ever medicine thee to that sweet sleep which thou owedst yesterday" [Othello: 3.3 334-337]. This refers to the surgical anesthesia / analgesia practiced in those days when extracts of *Papaver somniferum* and *Atropa mandragora* were used for surgical anesthesia.

Heart attack caused by excessive sorrow and emotion which remains suppressed, has been graphically described by Shakespeare thus in his *Macbeth*: "Give sorrow words. The grief that does not speak. Whispers the o'er fraught heart and bids it break" [Macbeth: IV 3 209-210]

In one of his plays, Shakespeare equated the third ventricle of the brain with memory. In his work *Love's Labour Lost*, one of his characters, Holfernes makes a statement "these are begot in the ventricle of memory, nourished in the womb of the piamater [Love's Labour Lost. IV. 2. 70-71]. This quote also endorses Shakespeare's acquaintance with the anatomy of the human body.

In *Henry IV*, he describes dislocation of the shoulder: "I would to God that I may die. That I might have thee hanged. Thou hast drawn my shoulder out of joint." [Henry IV 5.4 1-3].

The practice of using a tourniquet to stop hemorrhage followed by hypovolemic shock was known to Shakespeare as is evident in this verse from *Othello*:

Cassio: My leg is cut in two

Iago : Marry, heaven forbid! Light, gentlemen

I'll bind it with my shirt. So lend me a garter.

O for a chair, to bear him easily hence.

Bianca: Alas he faints. O Cassio, Cassio, Cassio

How do you, Cassio.

Iago : O, that's well sad, the chair!

Some good men bear him carefully from hence

I'll fetch the general's surgeon [Othello. 5.1 73-102]

Sprengel's deformity of the shoulder and congenital kyphoscoliosis was described in one of Shakespeare's works where Richard III was described as:

"Little of stature, left shoulder much higher than right

Crook backed, hard visage, body greatly deformed

Small face, cruel countenance". [Henry VI 3.3 155-170]

Shakespeare's character, Gloucester in *Henry VI* describes his birth, "For I have often heard my mother say, I came into this world with feet forward". This characteristically describes a breech delivery.

Brutus in *Julius Caesar* describes a fit of seizures that Caesar had thus:

"He had a fever when he was in Spain

And when the fit was on him, I did mark

How he did shake: 'tis true, this god did shake." [Julius Caesar. 1.2 127-129]

Epilepsy has also been described in many situations in various plays of Shakespeare like *Othello*, *King Lear* and *Macbeth*.

Interestingly, there are very few medical conditions that were not described by Shakespeare in his works mentioning that one or other of his characters suffered from them. One of them widespread in Elizabethan England was Syphilis which Shakespeare refers to as "pox" or the "rotten disease of the south" in many of his plays. He has described the disease and its complications in various stages, in his characters. Syphilis gains a mention in many of his plays like, *All's Well that ends Well*, *Cymbeline*, *Measure for measure*, *Othello*, *Hamlet*, *Henry IV*, *Henry V* and *Pericles, Prince of Athens*. This emphasizes the importance and rampancy of the disease in his times.

Even a simple disorder like bedwetting did not miss Shakespeare's pen. In *All's well that ends well*, his character Parolles mentions about his friend,

"For he will be swine drunk;

And in his sleep, he does little harm,

Save to his bed clothes about him;

But they know his conditions and lay him in straw". [All's well that ends well. 4.3.109]

Shakespeare's characters, many of them were wont to heavy bouts of alcohol and many a work of his has a mention of this malady. Sir John Falstaff and Bardolf, two of his characters from *Henry IV* are typical examples. The word of a porter who tells Macduff in Macbeth is an oft quoted verse regarding the effects of alcohol:

"Drink sir, is a great provoker of three things
Nose painting, sleep and urine.
Lechery sir, it provokes and unprovokes:
It provokes the desire, but takes away the performance." [Macbeth. 2.3. 9]

Hysteria is described in *Hamlet*, Prince of Denmark where Ophelia, Hamlet's fiance exhibits typical symptoms of hysteria over the death of her father and the separation of Hamlet. Claudius describes it thus "divided from herself" [Hamlet. 4.5.54].

Despite Shakespeare's interest in medicine, his works give the impression that doctors were not held in high esteem in those days. He did show doctors in poor light in some of his plays, though in one he caricatured a doctor as a buffoon. In many instances he has passed mild but categorical criticism of doctors thus:

"Trust not the physician:
His antidotes are poison,
And he slays more than you rob." [Timon of Athens. 4.3. 433 -434]

Shakespeare's knowledge of medicine and diseases was vast and he has portrayed most of the common illnesses of his time in his various plays. Suffice it to say the genius in him has been the source of inspiration to generations of students who still find newer and newer literary gems hidden in many of his plays.

What is given above is only a very short review of the myriads of conditions described in his works and an in-depth study of medical conditions referred to by Shakespeare would be a Herculean task by itself.

(I fondly dedicate this short article to the memory of my beloved teacher, Professor MG Sahadevan, who was instrumental in inculcating in me a love for Shakespearean literature)

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