



## CONTRACEPTIVES IN GREEK LITERATURE: A REVIEW

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## ABSTRACT

The concept of contraception can be traced back since antiquity. Contraceptives are the agents or measures which are used to prevent conception. Unani physicians like Hippocrates, Aristotle, Dioscorides and Galen were well aware of this concept. They wrote a lot of books and mentioned different techniques, methods and drugs used for the prevention of conception. They gave full description of drugs with different mode of application including oral, local and in the form of pessary and douches.

**Keywords:** Contraception, Contraceptives, Unani Medicine, Pessary, Douches

## INTRODUCTION

Contraception is the prevention of conception. It includes all measures temporary or permanent, designed to prevent pregnancy due to the coital act. Contraceptives can be defined as agents or measures used to prevent conception. Unani physicians like Hippocrates, Aristotle, Dioscorides and Galen were well aware of the concept of contraception. They wrote about different methods or techniques that can be used for the prevention of pregnancy. Some of these are simple to practice and non-injurious to health. They were also aware of the need for and gave importance to the subject of contraception. Hippocrates (460-377 BC) who is considered as father of medicine, wrote books like 'Kitab-al-Ajinna' and 'Auja-al-Nisa' and in these books he discussed about nature of semen, formation of foetus and diseases during pregnancy<sup>1</sup>. Dioscorides (40-90 AD), who is referred as father of herbal drugs, wrote a book Kitab-al-Hashaish which is considered as the most celebrated work in pharmacology. In this book he described about 600 herbal drugs and out of these he mentioned around 100 herbs which have been found effective in contraception, abortion, menstruation, extraction of placenta etc. Some of the drugs which he mentioned as contraceptives are<sup>2</sup> Androsarun, *Holorrhena antidysenteric* Linn, seeds made into a pessary with honey before coitus prevents conception<sup>2</sup>.

- Rennet of hare, if used as pessary after menstruation with butter, causes conception and when taken orally after the menstruation, it is contraceptive.
- Weeping Willow (*Salix babylonica* Linn), the rind of this drug, if taken with water orally by a woman, prevents conception.
- Iron rust, if taken orally prevents conception.
- Cabbage (*Brassica oleracea*) seeds used as pessary prevent conception.

Galen (130-200 AD), a great Roman physician and a scholar of pharmacology, in his "Kitab-al-Adwiyah al Mufrada" he mentioned several medicines which have direct bearing upon sexual diseases, gynaecology and procreation. He has mentioned that Lisan-ul-asafir prevents conception when used as pessary before coitus. Galen also claimed for Rennet's, being hot, tenuous, solvent and dry can be used as

contraceptives<sup>3</sup>. Besides these superb treatises on gynaecology, Muslim physicians in their other medical works treated the work excellently and wrote a number of treatises. These are so rich that they could be considered as independent books. Ali bin Rabban Tabri (860 AD) in his book "Firdaus al- Hikmat" discusses certain gynaecological issues and also contains a chapter on conception<sup>4</sup>. Among the existing Unani medical sources to discover different contraceptive methods, Muhammed bin Zakaria Razi's book "Kitab al Hawi fi al Tib" is the most authentic work. In fact, it is a medical encyclopaedia. In his 'Khulasa Al Tajrabat', Razi mentioned some techniques for preventing the entrance of semen in the womb: Seminal discharge should be held back before the separation and this would be only possible by practice (Coitus interruptus). The woman should insert some tablets or suppositories of drugs in the vagina to prevent the entrance of semen in the womb, so that the opening of the womb is closed thereby and the seminal fluid is prevented from entry into the womb. If semen has entered the womb, the following drugs may be applied to the womb or they may be inserted in the form of pills<sup>5</sup>—

- Ammonium chloride
- Cane sugar
- Alkali plant (*Album chenopodium*) and any other emmenagogues.

After Razi, Ali Ibne Abbas Al Majusi (994 AD) is the next important physician of the Abbasi period. After fifty years of Razi's death, he wrote an exhaustive text book dedicating it to his patron entitled "Al-Maliki" referred to as "*Liber regius*" in Latin. It is also referred to as "Kamil-al-sana'at". This book has unique distinction of being the first book to be translated in Latin<sup>5</sup>. Al Majoosi has mentioned many drugs which prevent conception, few of them are like, Salt of Inderain and he mentioned this drug as contraceptive for both man and woman. He suggested two ways of its administration. It should be applied on penis before sexual union. (b) It should be used by a woman as a pessary. He has mentioned that the use of the seeds and inflorescence of the cabbage as pessary causes contraception. He also prescribed Rennet of hare, as a pessary to prevent contraception<sup>6</sup>. Ibne

Sina (980-1037 AD) won universal acceptance and his contemporaries gave him the title of "Rais-ul-Attibba. He wrote "Al-Qanoonfil Tibb" which has been acclaimed not only in the orient but also in the occident and was prescribed as a text book in all the medical Institutions. He has described the following drugs and devices for contraception<sup>7</sup>.

- Intercourse should be avoided during the days when there is a possibility of conception. The posture should also not be such which results in pregnancy.
- At the time of ejaculation they should practice coitus interruptus.
- In case there is still a fear of pregnancy, the women should, after intercourse, jump backwards seven or nine times, which results in flowing out of semen.
- Before intercourse, *Tar Pinus* Roxb may be inserted in the vagina as a pessary.
- Penis should be anointed with *Tar Pinus* Roxb.
- The application of Balsam oil and White leadon penis and in vagina.
- A suppository made up of the pulp of pomegranate and alum can be put in woman's vagina after intercourse.
- Use of leaves of white poplar as a suppository after menstruation is helpful in prevention of pregnancy. Its action becomes strong if the oil of white poplar is added to it.
- Suppository of black pepper is also useful.
- If a suppository made by pulp of colocynth, white bryony, iron rust, sulphur, scammony and seeds of cabbage is used, it prevents pregnancy.
- If oil of sesame is applied on the glans penis before intercourse there will be no pregnancy.
- Leaves of Ivy used as a suppository have the same effect.
- 90 ml of sweet basil juice taken orally prevents pregnancy.

The famous Roman physician, Soranos of Ephesus, (98-138AD) recommends in respect of contraception that "one should abstain from coitus in the period which is especially sensitive, that is the time just before and just after menstruation"<sup>3</sup>. According to him there would be no conception if the following prescriptions are used<sup>3</sup>.

- When partners anoint their sexual organs with salt of Inderain before intercourse.
- If women puts the flower or leaves of cabbage in the vagina before intercourse.
- The leaves of *Populus aiba* Linn have the same contraceptive quality.

Ismail bin Husain Jurjani (1110 AD), author of "Zakheera Khawarizm Shahi" wrote in its fourteenth chapter, which is related to prevention of pregnancy, that if a woman is too young or her bladder is weak or some calamity is apprehended on her becoming pregnant (e.g. the rupture of uterus and enuresis), it is advisable that she should follow any of the methods for preventing pregnancy<sup>8</sup>.

- Man should endeavour that the two may not ejaculate simultaneously.
- Woman should jump to and fro so that semen is expelled.
- Sneezing by woman after intercourse also helps in expelling semen.
- Suppository prepared by yellow thin scales of pomegranate and alum is also useful.

Ibne Baitar (1197-1248 AD) is famous as a botanist and pharmacologist throughout Asia and Europe. The foundation of pharmacology, laid down by Dioscorides, was strengthened by Ibne Baitar in the Muslim period. In fact, he accomplished all that had been left incomplete by Dioscorides. In his work he has given details of more than 1400 herbs and eatables. There are around 400 herbal medicines which have been for the first time mentioned by Ibne Baitar<sup>9</sup>.

#### List of compound formulation used as contraceptive

Unani physician also mentioned following compound formulations, which can be used as contraceptives—

#### Humool (Pessary)

- Seed of Cabbage and Garden cress is mixed with *Tar Pinus* Roxb then soak in the juice of mint and used as a pessary.<sup>5</sup>
- *Citrullus colocynthisschrad*, Garden cress, Scammony, Hazarjashan, Iron rust, seed of Cabbage should be powdered, mixed with *Tar Pinus* Roxb and used as pessary after menstruation<sup>5,8</sup>.
- The powder of *Ruta greveolans* is mixed with Gallbladder of cow and should be used as a pessary in the cervix and as a plaster on the belly<sup>5</sup>.

#### Nutool (Douche)

Juice of *Ruta greveolans*, *Mentha pulagenium* Linn, *Tar Pinus* Roxb and *Juniperus comunis* should be decocted and used as douche on the abdomen and umbilicus.

#### Qurs (Tablet)

*Pimpinela anisum*, seed of *Apium graveolans*, *Foeniculum vulgare*, wild mint and *Mentha pulagenium* Linn one part *Valirians jatamasi*, *Cinnamomum zeylanicum*, *Cinnamomum cassia*, seed of balsam, wood of balsam, *Juniperus comunis* and *Saussurea lappa* half part should be used as a tablet before intercourse.<sup>11,12</sup> *Centratherum anthelminticum*, *Mesua ferrea*, *Zingiber zerumbet*, *Myrica nagi* and *Nigella sativa* each 36 g should be used as a tablet during menstruation.<sup>11,12</sup>

#### CONCLUSION

Contraception is being practiced since ancient times, one or the other method was used for this purpose. It is very important to space pregnancies and avoid unwanted ones in view of the women's health. Natural methods of birth control are always preferable to chemically based agents such as spermicides, contraceptive patches and IUDs which emit synthetic hormones, or the contraceptive pill which decimates the balance of gut flora and can lead to autoimmune disease in the mother and any children born later. Numerous herbs have been used historically to reduce fertility, and modern scientific research has confirmed anti-fertility effects in at least some of the herbs tested. In Unani system of medicine there are numerous drugs mentioned which were used as contraceptives in both the partners. A detailed research and modifications in the methods of using them is needed to assure that these drugs can be of immense help in the field of contraception. These drugs can be used safely without having any hazardous side effects on the health of individually specially women.

List of Simple drugs used as contraceptives

S. No.	Name of drugs	Source / Origin	Method of application and Administration
1.	<i>Allium cepa</i> Linn (Juice)	Plant	Local ( as liniment) <sup>10, 13-15</sup>
2.	<i>Aspidiumfilix-masssw</i> (seeds)	-do-	Oral <sup>10, 13-15</sup>
3.	<i>Anethum sowa</i> Kurz (Leaves and Seeds)	-do-	Oral, paste <sup>10, 13-15</sup>
4.	<i>Brassica oleracea</i> Linn (Seeds and flower)	-do-	Pessary <sup>7,9, 11-14,</sup>
5.	<i>Bryonia alba</i> Linn	-do-	-do- <sup>3</sup>
6.	<i>Caryophyllus aromaticus</i> Linn	do-	Oral <sup>10,13-15</sup>
7.	<i>Citrullus colocynthisschrad</i> (Pulp)	-do-	Douche <sup>10,13-15</sup>
8.	<i>Commiphora opobalsamum</i> Linn (Oil and Seeds)	-do-	Pessary <sup>10, 11-15</sup>
9.	<i>Convolvulus scammonia</i> Linn (Resin)	do-	-do- <sup>10, 11-15</sup>
10.	<i>Hedera helix</i> Linn	Plant	Oral <sup>13, 14</sup>
11.	<i>Mentha arvensis</i> Linn (Leaves)	Plant	Oral, paste <sup>7-10,13-15</sup>
12.	Katbeeniyah	-do-	Passery <sup>9</sup>
13.	<i>Mentha pulagenium</i> Linn (Leaves)	-do-	Douche <sup>10,13-15</sup>
14.	<i>Pinus sylvestris</i> Roxb (Oeloresin)	-do-	Douche, paste, liniment <sup>7-9</sup>
15.	<i>Ocimum basilicum</i> Linn (Leaf and seeds)	Plant	Oral <sup>13-15</sup>
16.	<i>Physalis alkekengi</i> Linn (Fruit)	-do-	-do- <sup>13-15</sup>
17.	<i>Piper nigrum</i> Linn (Seeds)	-do-	Pessary, paste <sup>10,13-15</sup>
18.	<i>Punica granatum</i> Linn (Seeds)	-do-	Pessary, paste <sup>11-15</sup>
19.	<i>Ruta graveolens</i> (Leaves)	Plant	-do- <sup>10-15</sup>
20.	<i>Salix babylonica</i> Linn (Leaves)	-do-	Oral <sup>7,9</sup>
21.	<i>Sesamum indicum</i> Linn (Oil)	-do-	Liniment <sup>13-15</sup>
22.	<i>Vicia feba</i> Linn (Seeds)	-do-	Oral, paste <sup>13-15</sup>
23.	<i>Ricinus communis</i> (Seeds)	-do-	Oral <sup>11-15</sup>
24.	<i>Rumex vesicarius</i> Linn (Leaves and seeds)	Plant	Tie on fore arm <sup>9</sup>
25.	<i>Convolvulus arvensis</i>	Plant	-do- <sup>9</sup>
26.	<i>Cyclamen graneum</i> (Root and Seeds)	-do-	Tie on neck <sup>9</sup>
27.	Saqoloqandriyoon	-do-	-do- <sup>9</sup>
28.	<i>Epimedian alpinum</i>	Plant	Oral <sup>9</sup>
29.	<i>Eugenia cryphyllata</i> Thunb (Clove)	-do-	Oral <sup>9</sup>
30.	<i>Cistus cretigus</i> Resinus	-do-	Fumigation <sup>10</sup>
31.	Qurmuz	-do-	Oral <sup>9</sup>
32.	Hazarjshan	-do-	Pessary <sup>9</sup>
33.	Sulphur	-do-	-do- <sup>9</sup>
34.	<i>Gentiana lutea</i> Linn	-do-	Paste on hand <sup>8</sup>
35.	<i>Ocimum sanctum</i> Linn(Leaves and Juice)	-do-	Oral and pessary <sup>3,7</sup>
36.	<i>Terminalia chebula</i> Linn	-do-	Pessary <sup>11, 12</sup>
37.	<i>Liquedambra orientalis</i>	-do-	Oral <sup>11, 12</sup>
38.	<i>Azadarachta indica</i> A Juss (Oil)	-do-	-do- <sup>11, 12</sup>
39.	Soda	Mineral	Local <sup>3</sup>
40.	Alum	-do-	-do- <sup>7,10, 13-15</sup>
41.	Iron rust	Mineral	-do- <sup>10,13-15</sup>
42.	Rock salt	Mineral	Pessary <sup>13-15</sup>
43.	<i>Sange sefal</i>	Mineral	-do- <sup>9</sup>
44.	Dung of Elephant	Animal	-do- <sup>7-9</sup>
45.	Gallbladder of cow	-do-	Douche, pastes <sup>10, 14,</sup>
46.	Rennet	Animal	Oral <sup>9</sup>
47.	Rennet of rabbit	-do-	Pessary <sup>9,10</sup>
48.	Rennet of stag	-do-	-do- <sup>9</sup>
49.	Urine of wolf	Animal	Local <sup>9</sup>
50.	Weasel (Bone)	-do-	Tie on neck <sup>9</sup>

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