Concept of child care described by Ibn-e-Sina in his Al-Qanoon Fit Tibb (Canon of medicine): A review

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Abstract

Unani Tibb is a holistic traditional system of medicine. It is one of the ancient systems of medicine of which many believe modern system of medicine has evolved. Greek/Ionian is translated as Unani and Medicine as Tibb in Arabic. It can be defined as that system of Greek medicine which developed during Arab civilization. In the Canon of Medicine, a chapter is dedicated to the care of the newborn infant dealing with hygiene, breastfeeding and upbringing of the child. Care of the newborn from the time of birth regarding the care of the eyes, umbilicus, and bathing, dressing and sleeping quarters. In the phase of childhood, most of the care should be focused on adjusting manners. To protect the child from severe anger, grave fear, depression, or insomnia, attention should be paid to find out his likes and bring them closer and keep away things that the child dislikes. Ibn-e-Sina states that, “Mother’s milk is for growth of the baby’s body and the music is for growth of the mind” Hygiene and disorders of dentition, inflammation of gums, fevers and convulsion during dentition, aphthous stomatitis (thrush), constipation and diarrhea and their remedies also. The review article dealing with the medical care for newborn described by Ibn-e-Sina in their Canon of Medicine.

Keywords: Child care, Ibn-e-Sina, Al-Qanoon, canon of medicine, unani medicine

Introduction

Ibn-e-Sina (commonly known as Avicenna) is one of the most famous and influential scientists in the history of medicine [1]. The Canon of Medicine, which is his most celebrated book in medicine, presents a summary of all the medical knowledge of his time [2].

In the Canon of Medicine, a chapter is dedicated to the care of the newborn infant dealing with hygiene, breastfeeding and upbringing of the child [3]. Child care is a multidimensional phenomenon [4]. To promote the health of children, it is essential to understand their peculiarities, as well as environmental conditions favorable to their development [5]. The term “off-label use of drugs in children” is common to current medical practice [6]. In the phase of childhood, most of the care should be focused on adjusting manners. To protect the child from severe anger, grave fear, depression, or insomnia, attention should be paid to find out his likes and bring them closer and keep away things that the child dislikes [7].

Inflammation of the gums (Warm-e-Lissa)

It may occur during dentition. Inflammations may also occur in the ligamentous structures round the mandibles, causing trismus. In such cases one should gently press the parts with the finger and rub in one of the oils named in the section dealing with the eruption of the teeth, or honey which has been well mixed with oil of chamomile, or with turpentine oil. One may also pour warm water, in which chamomile and dill have been boiled, over the top of the head from a height. For burning fain in the gums apply oil and wax as an epitheme or use salted flesh which is a little “high” [8].

Diarrhoea (Ishal)

This is especially apt to arise during dentition. Some account for it as due to the sucking in by the infant of salty sanious effete matters from its own gums along with the milk. But it is possible that this is not true; that the real cause is an interference with the natural faculty, so that digestion is imperfect and pain results.
It is just this that hinders digestion in feebly constituted infants. If it is only slight, you will not be asked to treat it. If the parents are afraid it will become injurious, leading to wasting, one would treat by applying rose-seed, caraway, anise, and celery seed to the abdomen, or apply a plaster prepared with caraway and roses infused in vinegar, or with frumenty boiled in, vinegar. Should this fail, use a sixth part of a dram of goat-cheese in. Cold water, taking care to prevent curdling of the milk in the infant's stomach by replacing the milk for that day with the soft yolk of an egg, or with morsels of bread boiled in water, or ground wheat boiled in water [9].

**Constipation during dentition (Husr)**

The treatment is by a suppository made with well-cooked honey, or with pennyroyal, or with iris-root (in the natural state or after scalding). A little honey may be given in the food. As much oil of turpentine as makes the bulk of a chick-pea may be gently rubbed over the abdomen; or olive-oil; or some ox-bile may be applied over the thigh or over the navel. Or maidenweed (bakhuri maryam) may be applied [10, 11].

**Convulsions during dentition (Tashannuj)**

This is generally due to fermentative changes in the digestion, aided by nervousness, especially if the baby is over-fat and humid in constitution. The treatment is to use oil of iris, lily, alkanna, or mallow [11].

**Grave convulsions during dentition (Kuzaz)**

This is treated by water in which cucumber has been boiled; or by oil of violets admixed with oil of cucumber. If there is reason to suppose that the convulsions are due to dryness, because they develop after fevers, or after severe diarrhoea, and because they gradually become more pronounced, then the joints should receive an injunction with violet-oil (alone or beaten up with a little white wax), and violet-oil may be applied to the head. The same things should be employed vigorously if dry tetanus develop [8, 11, 12].

**Incessant crying with loss of sleep (Fiqdan Al-Nuwum)**

Whimpering, The causes of persistent crying are: heat, cold, fleas, gnats, hunger, thirst, retained urine-for which give melon-seed and julep to both nurse and child; retained faeces-for which give the nurse laxatives, herbs, olive oil, prunes. For this condition it is necessary to make it sleep if possible, by giving poppy bark and seed, and oil and lettuce and apply poppy oil to the temples and vertex. If this does not suffice prepare the following medicament: Take bugle seed, juniper berry, white poppy, yellow poppy, linseed, celandine seed, purslane, plantain seed, lettuce seed, fennel seed, aniseed, caraway; some of each is roasted little by little; then all are rubbed together. Add one part of fried fleawort seed which is not powdered. Mix the whole with a like amount of sugar and give two “drams” as a potion. If it is desired to make it still stronger, one should add an amount of opium equal to a third part of it or less [8].

**Night-terrors (Allayl Al-Ahwal)**

These are often due to over-repletion with food, which undergoes putrefactive change. The stomach is aware of this. An injurious effect passes on from the sensitive faculty to the formative and imaginative faculties, wherefore the terrifying visions arise. It is necessary therefore to see that the stomach is not full at bed-time; honey should be given the infant to lick, and in this way it will digest that which is in the stomach and displace it [8, 11].

**Water on the Brain (Maaur Raas)**

In this condition accumulation of abnormal fluids in the brain ventricle which is known as Maaur Raas (Hydrocephalus). It is a type of Warm-e-Maayi [8].

**Inflammation in the brain (Warm-e-Dimag)**

There is pain in the eyes and the throat, and the face becomes yellow. The body is dry; the fontanelles are depressed, the orbits sunken: Aeg. Hence the brain must be rendered cool and moist by the use of cortex of cucumber, parings of gourd, juice of garden nightshade, and especially purslane juice, and rose oil with a little vinegar, and rose oil with egg-yolk. Each of these is constantly changed [8, 11].

**Affections of the mouth (Qula)**

Aphthous stomatitis- Aphthae (Thrush): Aphthae are plentiful when the lining membrane of the tongue and mouth is too delicate to bear touching, even by the wateriness of the milk, for it is this that is injurious to it, and gives rise to" the aphthae. The condition is worse, and dangerous to life, if they remain immature and black like charcoal. The condition is more favourable if they are white or yellow. The treatment is to employ some such gentle medication as -is described in special treatises on the subject. Sometimes triturated violets are sufficient by themselves; sometimes they need mixing with roses, a little saffron and carob-bean. Or, again, lettuce-juice, nightshade juice, purslane juice and endive-juice may suffice. If treatment is still resisted, use bruised liquorice root.

When aphthae are associated with boils in the gums it is beneficial to use myrrh, gall, frankincense bark, thoroughly ground up and mixed with honey. An acetous rob of mulberries and rob of unripe grapes may suffice. Sometimes it is advantageous to bathe the gums with honey-water and wine (or, syrup and honey) and follow this up with some of the desiccatives we have named [8]. If a stronger (astringent) medicament is required, use the leaf-veins and bark of pomegranate, and pomegranate blossoms and sumach, six drams of each; galls, four drams; aniseed two drams. Rub them together and thoroughly powder them up. Then dust this upon the gums [8, 11].

**Prominence of the eyes (Baruz Al-Euyun)**

Apply juice of boxthorn made with milk; then bathe with water in which chamomile and mountain balm have been boiled. Whiteness over the eyes, due to much crying, is treated with nightshade juice. If the eyelids are affected with blepharitis, owing to constant crying, treat this also with nightshade juice [8].

**Otorrhea (Silanal Uzn)**

Watery discharge from the ears. This is due to an undue degree of moisture in the body, especially in the brain. An ointment is prepared with wool-fat, honey, wine and a little alum, or nitre or saffron. This is then introduced into the ears with a syringe. Or it may suffice to dip wool into a sour wine or into wine to which a little saffron has been added, and place this in the ears [8, 11].
Earache (Wajaul Uzn)
This may be due to flatulence, or to undue moistness. It is to be treated by juice of boxthorn, origanum, salt, white sugar, lentils, myrrh, colocyth seeds and cedar or, savin seeds. Any of these should be digested in oil and instilled drop by drop [8].

Disturbance of the breathing (Aidtirab fi Al-Tana'afus)
Difficulty breathing—Anoint the roots of the ears and tongue with oil. It would also be very helpful to press the tongue down so as to cause the infant to vomit. Warm water may also be dropped into the mouth drop by drop, and a little linseed and honey be given it to suck [8, 11].

Abnormal snoring (Alshakhayr Ghyr Tabiei)
This is noticed when the infant is in very deep sleep. Give linseed ground up in honey, or ground caraway in honey, to lick [8].

Constant sneezing (Aleuts Al-Mustamiru)
This may be a sign of cerebral disorder. In such a case this must be treated, cooling the inflammation, by inunction with infringidant juices and oils. If there be no inflammation, some mountain balm may be insufflated into the nostrils [8, 11].

Cough and Coryza (Nazla wa Zukam)
Some people advice for this that the infant's head should be laved in plenty of warm water and that plenty of honey should be smeared over the tongue. After that, the root of the tongue should be depressed to enable the infant to expel the abundant phlegm by vomiting, which will secure recovery. Small doses of the following demulcents may also be given daily in new milk: gum arabic, gum tragacanth, quince seed, liquorice juice, brown sugar [8, 11].

Digestive disturbance (Fasad-e-Hazm).
Weakness of the stomach (Zoa-f-e-Meda). The abdomen should be anointed with musk and rose or myrtle water. Give a drink containing quince juice and a little clove or nutmeg, or three-eighths of a dram of nutmeg with a small quantity of quince-juice [8, 12].

Severe vomiting (Qai).
This may be treated with three grams of clove. A plaster containing weak anti-emetics may be applied over the stomach [8, 11].

Hiccough (Fawaq)
For this administer coco-nut water with sugar or honey can be used for it. Some-time Ajwain water is effective [11].

Flatulent distension (Nafakh-e-Shikam).
For treatment of Nafakh-e-Shikam, the following very useful measure may be here effective. Take equal parts of origanum, Castoreum and caraway. Rub them up and mix together. Give the weight of three barley grains in a draught [8, 12].

Colic (Wajaul Batan)
The infant writhes and cries. Hot water applications should be made to the abdomen, using also plenty of warm oil and a little wax [8, 11, 12].

Gripping (Al-Imsaak)
This is due to cold. Beneficial for this condition is the following •: three drams of each of nasturtium and caraway; grind them together. Pass through a sieve. Intersperse them with old cow butter. Give as a draught with cold water [8, 11].

Anal Prolapse (Khurooj-e-Miqad)
Give pomegranate bark, fresh myrrh, inner rinds of acorns (or, chestnuts), dried roses, burnt horn' alum of Yamen, nails of goats, pomegranate blossoms (unopened) and nails of fowls. Take equal parts and thoroughly boil them together in water until all their virtue has come out. Then give as an enema, tepid [8, 11].

Hernia (Fataq)
When a child cries very much, a swelling may form in the groin or navel. This is a hernia. Some-advice that it should be rubbed with cardamon (bishop's weed) and sprinkled with egg-white, a thin bandage being applied tightly over the place. Others advise burnt bitter lupin, as an infusion in wine and myrrh, placed over the part. Stronger remedies are: hot styptics (astringents), such as myrrh cypress bark; cypress fruit. Aloes; acacia fruit [8, 11, 12].

Formation of an inflammatory mass between the throat and stomach (Alkultul Al-A- Itthibah)
This sometimes spreads to the muscles and cervical vertebrae. The treatment is to cause the infant's bowels to act, using a suppository. After that, give mulberry rob and the like. An inflammatory mass may form in the navel, especially after the cord has separated. In this case one should use Celtic spice and- turpentine; dissolve them in rape-seed oil. They may be given internally or applied as a plaster over the navel [8, 11].

Worms (Deedan-e-Shikam)
Round worms are very injurious when they arise in the small intestine. Thread-worms are usually round the anus. Flat worms are rare. Round worms are treated with absinthe water (wormwood of Pontus), of which a little is given m milk, according to its concentration. It may be necessary to apply a plaster over the abdomen, made up of Kabul rice, myrobalan, ox-bile, and colocynth pulp. To treat threadworms take one part of each of elecampane and madder chelidonium; a kind of cucumber; (other readings)]; add sugar equal in bulk to the whole. Give as a draught with hot water [8, 11, 12].

Disorders of the Skin (Amraz-e-Jild)
Ibn-e-Sina described the following advice :- (i) Attend to the diet of the wet-nurse. Give sweet articles of food. (2) Attend to the diet of the child (a) this should not be too rich or too spare; (b) avoid constipation; add a little honey to the food; or, should this prove inadequate, add turpentine to the bulk of a chick-pea; (c) avoid looseness of the bowels: add millet to the food [8, 11, 12, 13].

Furunculosis (Al-Damal)
Pimples forming all over the body. If they are ulcerating and black it is a fatal sign. If they resemble aphthae, it is also mortal, especially when they spread out. If they are white, it is more hopeful. If red, it is also more hopeful. If they come out freely, it is a better sign. The treatment in all cases consists in using fine desiccants dissolved in the bath-water,
such remedies as rose, myrtle, mastic-leaves, tamarisk, and their respective oils being boiled in the water. Other remedies recommended by Alshaharavius: lotions of marjoram, mint, centaury; ointments of spuma argenti, ceruse, Armenian bole, sulphur, mercury, almonds [8, 12, 13, 14, 15].

If the furuncles are healing, they should be left alone until they are mature; and they are then treated. If they are ulcerated, they need an ointment of ceruse. They may need bathing with honey-water and a little nitre, as one does aphetae. If they scab over it will be necessary to use something stronger. One therefore bathes them with aqueous borax mixed with milk, to enable it to be borne [8, 11, 12, 13].

If they become vesicular, they should be steamed, and have water poured over them in which myrtle and rose and bogrush (schoenus), quinseywort- (asperula) and the (young) leaves of the mastic tree have been boiled [8, 12].

**Intertrigo (Althanayat)**
Apply ground myrtle as a dusting powder, or use powdered liquorice root or iris root or finely ground-up. Rose or galangale, or barley flour, or lentil flour [8, 11, 12, 13].

**Fever (Humma)**
In this case it is best to treat the nurse by giving her such remedies as pomegranate juice mixed with oxymel and honey and succus citruli, and a little camphor and sugar [or, acetous syrup of pomegranate and honey and cucumber juice, with a little camphor and sugar]. Then induce sweating by using fresh reeds, which are squeezed so that their juices can be applied to the head and feet, covering these parts therewith [8, 11, 12, 13, 14, 15].

**Conclusion**
According to Avicenna, longevity is predetermined by the primordial temperament if it is properly managed; therefore, health management should aim to prevent putrefaction and protect moisture, thus preserving strength. The foremost consideration should be on managing seven factors: Maintaining the temperament near equitability- eating healthful food, cleansing from waste, maintaining physical fitness, breathing clean fresh air, maintaining a healthy environment, improving the physical and psychological practices, including sleeping and wakefulness. For handling a newborn, including supporting the baby’s neck, changing diapers, bathing, dressing, swaddling, feeding and burping, cleaning the umbilical cord.

**References**