

COMMON AILMENTS OF ELEPHANTS

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The following are some common ailments met with, among elephants.

GALLS : These are generally caused by ill-fitting gear, ropes and chains. These should be treated as wounds and washed both morning and evening with antiseptic lotions such as cresol saponified (1 in 100) or carbolic acid (1 in 40) and dressed with anti-fly dressing. Then dry dressing such as zinc oxide and charcoal powder (1 in 8) may be dusted.

WOUNDS: Wounds are generally caused among working elephants due to fighting and falls etc and to new-captures, due to external violence, such as butting against posts and bars in the kraal. There are different kinds of wounds and the treatment varies for each.

If bleeding is noticed, arrest bleeding by tying or twisting the blood-vessels; clean the blood-vessels thoroughly with antiseptic lotion, remove foreign matter such as mud, stones and if possible the edges of the wounds may be brought together by a few sutures. Paint tincture of iodine, smear anti-fly dressing and dust dry such as Iodoform and Boric Acid.

For persistent wounds an application of copper sulphate (3 grains to an ounce of water) once daily for two or three successive days, followed by anti-fly dressing will promote rapid healing with one pint of anti fly dressing, two ounces (of 56 grams) of sulphanilamide powder can be added.

Preparation of anti-fly dressing:-

Dikamalli - 1 ounce (28 grams).
Camphor - 1 ounce (28 grams)
Garlic - 1 ounce (28 grams)
Neem oil - 24 ounces (one bottle) or (681 ml).

(Dikamalli is the resin of *Gardenia lucida* available in the bazaars).

Directions for preparation:

Dikamalli and garlic should be well -crushed and kept separate. Boil first of all, a small quantity of neem oil in a suitable vessel, add garlic and stir it frequently until froth subsides and the garlic turns to a golden-brown colour, as will be the case when onion or garlic is fried in oil for curry-purposes. Then add the remaining quantity of neem oil to the vessel and as soon as the neem oil boils, dikamalli powder may be added and stirred well; then remove the vessel from the oven and keep it away from the fire-side; to the hot oil add camphor and cover the vessel with a lid; wait till the oil cools down to room-temperature, then transfer it to a suitable container.

GUNSHOT WOUNDS: Occasionally, it may become necessary to treat elephants for gunshot wounds.

The following case may interest to the reader. Once when a man went in a jeep into the jungle, one of the trained and prized elephants, scared by the sound and sight of the

jeep, came in the opposite direction to attack the jeep; the party inside the jeep had to apply break, stop and get down. The animal began to attack the vehicle; in self-defence one of the members of the party fired two 'shots at the animal; the latter made a frightful trumpeting noise, and ran away. Subsequently the attendants of the animal went and brought the elephant to the camp; his two fore-limbs were swollen very much and with much difficulty the elephant moved slowly and reached the camp; since then he had been tethered to a tree and allowed fodder and water at the standing.

For purpose of facilitating examination of the two wounds, and probing them, the elephant had to be stood by the side of a large bamboo-clump, some bamboos had to be removed and the Veterinarian had to stand under cover of the bamboo - clump and examine the wounds.

The elephant had sustained a bullet wound, a few inches above the point of elbow of one fore-limb, and another bullet-wound on the forearm of the other fore-limb. The direction of the bullet-wounds had been passing obliquely and the exact places where the bullets were lodged could not be located. Before inserting the probe, the parts surrounding the openings of the wounds were sprayed with ethylchloride.

Treatment: The swellings were fomented twice daily for half-an-hour, each morning and evening. On the first day, 30 grams of strepto-penicillin were pushed in intramuscularly. On the second day 25 grams and on the third and fourth day 20 grams daily were pushed in the fifth day, 300 C.C. of sulphadimidine sodium solution 33 1/3%, was pushed in subcutaneously. From the sixth to the ninth day daily 125 grams of sulphadimidine was administered orally after mixing with 50 grams of sodium bicarbonate and 225 grams of jaggery and masking in balls of cooked rice.

Subsequently the inflamed parts were being irrigated with cold water, each morning and evening for half-an-hour, and the wounds were being dressed with gauze soaked in camphor-oildressing. Also arrangements were made to purchase an infraphil lamp and pass infra-red rays from a distance of about a foot for 15 minutes on each forelimb, each morning and evening at day break and at dusk as a routine-measure. In about three months the swelling completely subsided and the wounds healed up. The animal was released for dragging timber.

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Editor's Note: The present article is taken from the notes of an relatively old hand-written and unpublished document. Some of the suggestions and treatment are so straightforward and simple that they seem eminently useful. These will be typeset and brought out as a casual publication by Zoo Outreach Organisation. Some of the chapters and treatments will be translated into Malayalam for use by participants of the next mahout training course.

ABSCESSSES IN ELEPHANTS: An abscess is characterised by the collection of pus in a cavity of the body. It is caused by pyogenic organisms entering through breaches of skin, mucous membrane, tissues etc., mostly brought by inflammation, generally caused by external violence, pricks and punctures of thorns, and stakes and bruises from uneven pressure of ill-fitting gear in elephants. It may also be due to heavy falls, severe blows and knocks against heavy objects, and wasp-stings.

Abscesses may be acute or chronic; they may also be superficial or deep. Acute abscesses are generally formed in about three to five days from the date of commencement of infection; at first there is acute inflammation; the acute superficial abscess is more or less circumscribed, firm hot red and very painful; then the centre gradually softens and the periphery continues to be firm; later there is fluctuation or pitting on pressure by the fingers. Left to itself the centre becomes thinner day by day and at this stage, it is said to be pointing; soon it bursts and exudes purulent matter. Usually there may not be any febrile symptoms.

Acute deep abscess generally develops under thick layers of tissues, as muscles of limbs, back etc; at the very outset, febrile symptoms will manifest, then interference with the movement or stiffness in the affected part or by oedema in its vicinity. Subsequently local symptoms as swelling with or without pain, pointing etc may develop.

Treatment: Consists in adopting measures to hasten the ripening or pointing of the abscess and opening and evacuation of the purulent matter, and regularly dressing the abscess-wounds to promote early and rapid healing. The application of hot fomentations and stupes, acts as an analgesic and relieves the pain of the patient. The application of a blister may quicken the ripening-process but it may, somewhat, aggravate the pain of the patient, temporarily. For opening the abscesses, it is advisable to use a sharp-pointed bistoury. For enlarging the pouches, the use of a probe-pointed bistoury may be resorted to, and bold incisions may be made. In the case of large pouches, a counter-opening may be made at the lowest dependent part by means of a seton needle.

CHRONIC ABSCESSSES: (Superficial and deep ones)
The process of development is very slow in elephants. It is either painless or slightly painful and it persists for a long time as an indurated, swelling. These may be caused by slight and repeated injuries as may be for kneeling on hard surface, for loading, unloading baggage, riding-sets or howdahs. They may occur on the back, shoulder, chest, point of elbow, knees, stifles, etc., Owing to the thickness of the skin it does not readily come to a head in the elephant. The most prominent part of the swelling may be chosen and a knife plunged or stabbed with force into it; a fine trocar and canula may be used for exploring and finding out as to whether matter has been formed. Before using them, Ethyl chloride may be sprayed on the part. Better still, planocaine about 1/2 to 1 drachur may be injected in three or four places around the site intended to be penetrated by the exploring needle or by the knife.

The following line of treatment may be followed: For an hour in the morning and evening foment the affected part; apply a

mild blister by mixing equal quantities of powdered mustard and lime with a little groundnut oil to form the consistency of condensed milk and smear it on the swelling.

In lancing the abscess, the cavity may be cleaned with a warm antiseptic solution say, one ounce of izal or phenyle to a gallon of warm water, by means of a garden-syringe on stirrup-pump; dry out the wound; smear swabs of proflavina 1 in 1000 solution; insert lint or gauze soaked in camphor-oil or eusol or saline - When the cavity is clean and healthy, cleanse the cavity once daily; plug the wound with lint or gauze dipped in 20% magsulph solution. The lips of the wounds may be smeared with camphor-oil dressing.

A handy prescription for camphor-oil dressing is as follows:-

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| 1. Coconut:- oil | one bottle or 24 ounces or 681 ml. |
| 2. Turpentine | ounces or 227 ml. |
| 3. Camphor | 2 ounces or 56 ml. |
| 4. Izal or phenyle | 1/2 ounces or 14 ml. |
| 5. Petrol | 5 ounces or 140 ml. |

N.B: First of all, boil the coconut oil well for five minutes in a clean vessel provided with a lid. Then remove it from the oven, add the camphar. Cover the vessel with the lid and allow it cool the remaining articles. An addition of four ounces or 112 grams of sulphanilamide to the above dressing will be beneficial. In order to bring about rapid healing of abscess-wounds, an initial dose of 60 to 90 lakh units of Avloprocil, followed by 30 to 45 lakh units of the same drug daily for 2 or 3 days may be tried. A subcutaneous injection of 125 c.c. of soluseptasine, 20% solution also, was found useful to promote rapid-healing.

The following record of treatment of a deep-seated abscess in an elephant complicated by a large oedema may interest the reader.

1. Name of the elephant: Bhaskaran, a good timber dragging animal
2. Age: Over 35 years (In the prime of life)
3. Height: 8'4" or 2.54 metres.
4. General condition: good.
5. Name of owner: Sri V. K. U. Sons., Nilambur
6. Date of inspection and commencement of treatment: 28.10.55.

HISTORY AND SYMPTOMS: Since last two days, the animal had developed a large diffused swelling on the left side of the neck extending from the angle of the lower jaw to the base of the neck. It was hard to the touch and not hot. In continuation of this swelling, an extensive oedema was present extending from the throat along the neutral aspect of the neck, sternum and abdomen up to the perineum, and the animal presented an alarming sight. He was dull and sluggish in movements. The temperature was 97°F; it was normal; he was feeding and grazing quite satisfactorily; the dung and urine appeared normal; no fluctuation of matter could be felt on the swelling in the neck.

Treatment: 28.10.1955: Foment the swelling on the neck and oedema with water as hot as can be borne by the hand for half-an-hour, twice and paint liquid iodine.
Avloprocil 60 lakh units 1/m.

Sulphadimidine BVet c 5gm tablets	25.
Sodium Bicarbonate (crushed)	55gms.
Jaggery	225gms.

Mixed well, masked into a rice ball and administered orally.

N.B. In addition to supply of cut-fodder, about 8 kilograms of rice was cooked and fed after masking the above drugs in it. Also another, quantity of about 8 kilograms of rice was prepared into gruel and allowed to the animal. He was not bathed. 29.10.55, 30.10.55, 31.10.55. Instructions were given to repeat the fomentation twice daily and repeat the administration of the sulphadimidine B-Vet-C with sodium bicarbonate and jaggery on these three days.

1.11.55: The fomentation was repeated.

2.11.55: Inspected the elephant this day. The oedema of the abdomen and sternum had reduced considerably; nearly three quarter of the oedema had subsided. The swelling on the neck, had become rounded like a foot-ball and it was tense, cold to the touch and painless. The feeding was normal; the temperature was normal. The swellings were fomented for half-an-hour, twice. Orally the following mixture was prescribed for four days.

Pot.Iodide - 2 ounces or 56 grams.
Tinct. Hyoscyamus-4 ounces or 112 ml.
Ext. Punarv. liq - 8 ounces or 227 ml
Syrup simplex-12 ounces.

To be given in doses of 3 ounces twice daily for 4 days, ie, from 2nd to 5th Nov'55, masked in rice ball. (Instructions were also given to continue to foment the swelling twice daily)

10.11.55: Inspected this day; the oedema had practically subjected in the sternal and abdominal region; there was only very slight oedema now; but the swelling on the neck, remained in the same stage, without getting reduced in size. Then 60 lakh units of avloprocil were pushed in i/m. The swelling was explored with aseptic precautions. Only blood oozed out.

Instructed to bath the animal twice daily as usual and irrigate the part with cold water for half - an hour twice daily; instructed to give the following mixture for 8 days.

Pot.Iodine - 2 ounces (56 grams)
Ammon chlor - 4 ounces (112 grams)
Liq/Ext Sarasoparilla - 8 ounces (227 ml)
Aqua ad - 32 ounces.
Sig: give two ounces each morning and evening masked in rice-ball.

11.11.55. Repeat

12.11.55. Repeat

13.11.55. The swelling did not show any reduction in size Avloprocil, 60 lakh units, was pushed in i/m. Repeat oral administration of the mixture. Abliaster with an ounce of zing Hydrargyri todidi Rubri was applied.

14.11.55. No Treatment : except oral administration of the mixture.

15.11.55. The inflammation was found increased in size and there was a little fluctuation. Explored the part; serum mixed with pus was noticed. Lanced and evacuated about four pints of sanguino-purulent matter. After cleaning the wound with dettol, lotion gauze soaked in camphor oil dressing was inserted.

Also pushed in 300 c.c. sulphadimidine sodium solution, 331/3% B,Vet.c. subcutaneously. The administration of the dropsy-mixture was stopped.

16.11.55, 17.11.55, 18.11.55, 19.11.55 Foment the abscess-wound twice daily with water as hot as can be borne by the hand, irrigate the abscess-wound with dettol lotion and clean; dress with gauze soaked with camphor oil dressing; give daily on these four days sulphadimidine B.Vet.C. 125 grams or 25 tablets each weighing 5 grams, sodium bicarbonate, 50 grams and jaggery 225 grams mixed well and masked in rice-balls. From 20th onwards, the abscess wounds was being regularly fomented and dressed with camphor oil dressing. The swelling had considerably reduced.

23.12.55, 24.12.55 on each of these days, in addition to dressing the wound regularly, a quantity of 20 grams of strepto-penicillin, was pushed in intramuscularly.

The abscess wound had completely healed up by about the end of Feb' 96.

SPRAINS: Though elephants are really sure-footed animals, they occasionally sustain sprains by stepping on ground which collapses under their weight, or by shipping on a steep hill side, or by getting one of the legs caught between rocks or logs etc.

Symptoms: Lameness, pain, heat and, inflammation of the affected joint.

Treatment: Irrigate the part with cold water twice daily for one hour and rub stimulating liniment; allow rest; supply cut fodder and water at the standing.

DISLOCATIONS: Sudden falls, external Violence, or slips may cause dislocation of joints in legs and hips. These occurrences are generally rare.

Symptoms: Alternation in shake of the joint, inability to use the limb, pronounced pain and swelling.

Treatment: Tie the animal and give cut fodder. Or put it in the Kraal or crush; one or two bars may be passed underneath the belly to support the animal for standing and sleeping. Reduction of dislocation in elephant is practically impossible. Application of hot water, poultices, or a bag of hot sand for an hour morning and evening may be tried; these will ease the pain and may do good, especially for cases of partial dislocations; in due course, it will set itself right. In case there is no improvement, the animal will have to be shot.

FRACTIONS: are generally caused by falls or by falling logs in steep country. Dragging logs downhill on steep slopes, may sometimes bring about fractures of the legs. Occasionally one or more ribs may be fractured when elephants fight. It

may be simple or severe; the bones may be broken in one or more places; the surrounding tissues may or may not be injured badly.

The symptoms of fractures of legs are,

1. alteration in the shape of leg.
2. swelling
3. pain
4. inability to bear any weight
5. shortening
6. excessive mobility of the limb.

Treatment: In the case of a simple fracture give a chance for the animal it may be tied up and hand fed or kept in a kraal or crush.

No treatment to set the bone or reduce shortening is possible, and if the animal shows no sign of recovery, it should be shot.

COLIC: Colic is a symptom of many abdominal diseases. The animal suffering from colic constantly lies down and gets up

and rolls from side to side, and cronches often. Colic may show itself in cases of indigestion, tympany, enteritis, peritonitis, hernia etc., but the most common form of colic is that due to indigestion. In such cases it is very violent and tympany may also be present.

Give enema, walk the animal about; foment the abdomen and give the following; oil of turpentine - 2 ounces, with oil of arachis, 4 ounces or 112 ml., twice daily. During this time, give easily digestible food such as rice-gruel.

How to give an enema:- Dissolve about two ounces or 56 grams of soap in about 4 gallons or litres of luke-warm water. Make the animal sit; clear the rectum of its contents by passing the hand; it should be smeared with castor oil groundnut oil. Reids Enema syringe is commonly used for this purpose. Lubricate the nozzle of the syringe with vaseline or oil. Pass the tube into the rectum about a foot or two; slowly pump the liquid and if possible walk the animal slowly for a short distance. (In the absence of Reids Enema syringe, the stirrup pump or garden syringe may be thoroughly cleaned and then used for giving enema for the elephant.)

A NOTE ON THE TREATMENT OF AN INJURED WILD TUSKER AT THE AGASTHYAVANAM BIOLOGICAL PARK, KERALA.

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An injured wild tusker sighted by the forest officers at the Agasthyavanam Biological Park, Trivandrum, Kerala required immobilization to assess the severity of injuries and to carry out the necessary treatment. The elephant was reported to be frequently habitating the area close to the Peppara lake. The only possible approach to the animal was through the lake. A motor boat was used to scan the area for the elephant. The boat cruised a distance of 5 km from the starting point at Peppara dam and it was 5 hours before the elephant could be spotted at the lakeside. The boat was stopped at approximately 10 meters from the elephant and the animal was tranquilized from the boat with Immobilon1 (3 ml) to hit its right shoulder region using Cap-chur gun. Darting the elephant from the boat and a watch at the lakeside removed the risks associated with immobilizing animals getting into water-holes.

The elephant wandered to a distance of 100 mts and lied down within 5 minutes of the dart. The animal was examined soon after.

Multiple, deep, punctured wounds and lacerations were seen at the regions of the trunk, rump and perineum. A fistula, 45 cm long was seen at the base of the trunk. A 20 cm deep wound was seen in the region of the left rump.

The wounds were cleaned with Savlon solution. Pus and debris were removed by irrigating the wounds with hydrogen peroxide solution. The wounds were dressed with Charmil ointment and the animal was administered Benzathine Pencillin G3 576 lac units intramuscularly. The entire operation lasted for

thirty minutes, after which the elephant was administered the antidote Revivon4 (4 ml) intravenously. After 30 minutes, a further dose of Revivon (2 ml) had to be given to hasten recovery. The elephant made an uneventful recovery and started grazing four hours later.

Some observations after immobilization

Prolapse of the penis was seen in the recumbent animal. The pulse rate (per minute) and respiratory rate (per minute) after 25 minutes of anesthesia were 67 (normal -34 to 46) and 6 (normal 5 to 8 in lateral recumbency) respectively.

The first sign 3 minutes after the injection of Revivon was movement of the tail. Penis was retracted at 17 minutes and the animal was able to move its trunk at 19 minutes. Movement of the ears was noticed 4 minutes after the second injection of Revivon. The respiratory rate (per minute) was 9 at 6 minutes after the second injection. However, the animal continued to be in lateral recumbency, for about four hours.

1. C-Vet Ltd.
2. Dabour Chemicals Ltd.
3. John Wyeth and Bros Ltd
4. C-Vet. Ltd.

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