

Editor's Note:

Colonel Heyland's observations on army horses and cavalry regiments in the final stages of the Third Anglo-Burmese War was originally published as a chapter (XVII) in *History of the Third Burmese War, 1885, 1886, and 1887*, in 1889. The organization of transport and mobile field forces was a significant problem for British forces in the early months of the war. In December 1885, for example:

“[S]ome 199 royal elephants and 300 ponies from the Manipur Cavalry in Mandalay were brought into the Transport Department of the Field Force, but of these half the elephants were without mahouts or only half trained, and half of the ponies were unserviceable. In addition to these, ponies were purchased in Upper and Lower Burma as fast as they were brought in. The Expeditionary Force in its equipment being devoid of animal transport, it was also devoid of gear, so gunny-cloth pads were made for the elephants, and the ponies' backs were covered with a rough gear on the same principle as that used in the Punjab. In efficient as it was, this improvised transport was found to be a great boon, and enabled moveable columns to march unencumbered with coolies.”

(*History of the Third Burmese War, 1885, 1886, and 1887*, Calcutta: Superintendent of Government Printing, 1887, I.43).

This account thus remains a critical source on an otherwise obscure topic of Burma's colonial history and Burmese resistance to British imperial expansion.

M. W. C.

**Notes on Cavalry Employed in Upper Burma From October
1886 to October 1887**

Colonel Heyland
1st Bo. Lancers

Regiments Employed

Four Regiments of Indian Cavalry were employed:

REGIMENTS.	Left India, date.	No. of sables hired, &c.	STRENGTH.		Arrived at Rangoon.	Left Rangoon.	Arrived at ports on Irrawaddy.
			Horses.	Ponies.			
1st Madras Lancers.	<i>From Madras.</i> 18th, 19th and 21st Sept. 1886.	3	478	240	23rd, 24th and 26th September 1886.	24th, 25th and 28th September 1886.	Minbu, 2nd Oct. 1886. Pagan, 8th " " " Pokoko, 8th " " "
7th Bengal Cavalry.	<i>Calcutta.</i> 10th and 23rd September 1886.	4	533	347	15th and 20th September 1886.	16th September and 1st October 1886.	Myin-mu, 10th Oct. 1886. Sagain, 11th " " " Ava, 12th " " " Mandalay, 13th " " "
3rd Hyderabad Contingent Cavalry (front rank lancers).	<i>Madras.</i> 30th Sept., 1st, 2nd and 4th October 1886.	4	529	295	5th, 6th, 7th and 9th October 1886.	10th, 14th, 17th and 25th October 1886.	26th October, 2nd, 5th & 11th November 1886. Arrived at their posts for Yè-u and Shwebo District.
1st Bombay Lancers	<i>Bombay.</i> 20th Sept. 1886	4	552	322	1st October 1886.	2nd, 3rd, 9th, 10th and 15th October 1886.	Myingyan, 13th, 14th, 20th, 21st and 27th October 1886.
	TOTAL	...	2,092	1,204			

All siledar regiments, excepting the Madras Lancers, who are mounted by Government.

As each detachment reached Rangoon, it was forwarded as early as possible by Irrawaddy flats,—one steamer between two flats to the nearest place on the Irrawaddy to the post to which it was ordered.

As the steamers were only allowed to run at night, some detachments took 10 days and upwards on the river voyage ; but, as it was generally feasible to land half or even all the horses at night for a walk, and a roll on the ground, the animals soon recovered from the effects of their sea-voyage.

The distribution of all four regiments at first was as follows :—

1st Madras Lancers to the Minbu district to Pagan and Pokoko.

7th Bengal Cavalry to the Mandalay district.

3rd Hyderabad Contingent Cavalry to Yè-u and Shwebo districts.

1st Bombay Lancers to the 3rd and 4th Brigades or the Myingyan and Ningyan (*Pyinmana*) districts.

Mode of Employment

Each regiment was of course at once broken up into numerous detachments of any strength from a squadron to 25 sowars, some detachments being 200 miles or more distant from Regimental Head-quarters; and as these detachments were constantly changed and attached to columns marching through the country, months sometimes passed without the Commanding Officer of the regiment or the Adjutant hearing of

them; indeed frequently these two officers were separated for weeks from each other by the exigencies of the service.

It speaks well for the discipline of the Native cavalry of the expedition under such circumstances that everywhere they did good service and were spoken of in high terms by all officers, Military and Civil, and by general officers under whose orders they served.

The points connected with the use of cavalry in Upper Burma which appear most prominent are—

(a) The excessive mortality amongst horses (*vide* tables attached).

(b) The excellent health enjoyed by the cavalry, fighting-men, and followers as a rule throughout the whole year under reference, even when undergoing considerable exposure during the wet season.

(c) The extraordinary moral effect produced by the big horses on the Burmans, accustomed as they are only to 12-hand ponies—"Devils on big horses"—"Kala Tasaymah Muddeeyah Minbo Mah," as they called our Indian horsemen.

(d) The excellent forage nearly everywhere obtainable throughout the year, whether kurbee, or grass, green or dry.

(e) The efficient Commissariat arrangements which never left the horses and ponies without their grain, nearly always the best gram, nor the men and followers without as much of the best rations as they required.

Mortality Among Horses

Referring to (a), the cause of the great mortality amongst horses no doubt will receive or has received the attention of Veterinary Surgeons with a view to the future employment of cavalry in Upper Burma or beyond its frontier, and it seems reasonable to suppose that the prevention of the disease or diseases which has or have killed by this time (16th November 1887) nearly half the 2,092 horses which reached Upper Burma in October 1886 will not be difficult if proved to be due to the use of green fodder, as it probably will be, as it is comparatively an easy matter to feed on hay or dried kurbee at permanent posts, and to export from India compressed forage at a moderate cost as soon as the rail to Mandalay supplements the river way.

It is worthy of notice that the Burmans always feed their ponies and cattle on kurbee (Jowaree stalk) whenever they can get it, chopped very fine, and not given, as in India, simply broken. The Burmans are very skilful in chopping the kurbee stalks into very fine chaff with their dahs, and invariably at the conclusion of a march commence to chop whatever forage is available. Our cavalry and transport drivers might well take lessons from the Burmans in the care of their bullocks and ponies, for indeed a thin animal, the property of a Burman, is rarely, if ever, seen.

The loss amongst fighting-men and followers of the cavalry force by death and invaliding is as follows :—

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REGIMENTS.	EUROPEAN OFFICERS.			NATIVE RANKS.			FOLLOWERS.		
	Killed in action.	Died of disease.	Invalided.	Killed in action.	Died of disease.	Invalided.	Killed in action.	Died of disease.	Invalided.
1st Madras Lancers	1 Died of wounds.	4	8	...	4	7
7th Bengal Cavalry	3	14	46	...	9	18
3rd H. C. Cavalry	2	2	26	1	14	7
1st Bombay Lancers	2	2	8	27	2	3	9
TOTAL	2	8	28	107	3	30	41

Burman Dread of Cavalry

Numerous instances have occurred of large numbers of armed dacoits becoming utterly panic-stricken at the mere sight of a few horsemen and of their flying without the slightest attempt at resistance. Knowing this, no wonder need be felt on perusing the bulletins recording petty encounters with dacoits, when the slaughter of the latter by a few sowars appears incredible to people unacquainted with the Burman dacoit. It requires a hard heart and strong sense of duty, but neither courage nor skill, to slay or wound with lance or sword any number of terrified, unresisting men when caught flying in the open.

For instance, at Alegun in the Pokoko district on the 12th December 1886, 50 lances attacked over 700 dacoits who had taken up a strong position within a walled enclosure; at the approach of the cavalry at a gallop the dacoits at once took to flight in all directions, and the result recorded was over 200 dacoits killed and wounded, and subsequent enquiries have proved that this number was by no means over-estimated.

Again, on the 1st April 1887, 30 lances and 17 mounted infantry attacked 700 dacoits in a strong walled position at Taungdingyi, and in pursuit the dacoits suffered very severely with no casualties on the attacking side.

At Tebya on the 5th December 1886, only 30 lances attacked 200 dacoits, killing a large number.

Besides numerous instances in which the strength of the enemy, although great, was not known—

at Yemethin on the 19th December 1886,

near Meiktila on the 1st January 1887,

at Watchokin on the 29th January 1887

and at other places needless to mention, the slight of a few sowars was sufficient to put to flight large bodies of dacoits.

Monthly casualties among horses (including officers' chargers) in 1st Madras Lancers from 1st October 1886 to 1st October 1887.

DATE.	Year.	Died on voyage to Burma or with effect of.	Anthrax.	Sura.	Kumri.	Fever and sunstroke.	Other diseases.	Killed in action.	Total deaths.	REMARKS.
September and October.	1886	10	...	...	...	...	1	...	11	
November . . .	"	...	...	...	14	...	2	1	17	
December . . .	"	...	...	...	19	...	3	2	24	
January . . .	1887	...	...	...	11	...	3	...	14	
February . . .	"	...	...	...	6	...	...	1	7	
March . . .	"	...	...	...	2	6	4	...	12	
April . . .	"	...	...	...	...	8	2	1	11	
May . . .	"	...	...	...	19	1	4	...	24	
June . . .	"	...	1	...	1	1	...	...	3	
July . . .	"	...	...	...	...	3	2	...	5	
August . . .	"	...	...	...	...	1	...	...	1	
September . . .	"	...	...	...	13	...	1	...	14	
TOTAL . . .	...	10	1	...	85	20	22	5	143	

Regiment landed at Rangoon—23rd, 24th and 26th September 1886.
 Strength in horses left India—478.
 Received draft of horses in 1887 of 115.

Monthly Casualties among horses (including officers' chargers) in 7th Bengal Cavalry from 1st October 1886 to 1st October 1887.

DATE.	Year.	Died on voyage to Burma or from effect of.	Anthrax.	Surra.	Kumri.	Fever and sunstroke.	Other diseases.	Killed in action.	Total deaths.	REMARKS.
September and October.	1886	7	1	1	1	...	10	In May last surra broke out almost simultaneously at Yewoon, Samoon, Aracon, Peyada near Mandalay, and subsequently at Zagahin.
November . . .	"	...	...	...	...	...	2	...	2
December . . .	"	...	...	...	5	...	...	...	5
January . . .	1887	...	...	...	3	...	1	...	4
February . . .	"	...	...	...	6	...	...	...	6
March . . .	"	...	...	...	3	...	1	2	6
April . . .	"	...	...	...	...	...	2	...	2
May . . .	"	...	...	5	...	...	2	...	7
June . . .	"	...	...	17	...	...	1	...	18
July . . .	"	...	...	58	...	...	3	...	61
August . . .	"	...	...	23	4	...	1	...	28
September . . .	"	...	...	12	8	...	3	...	23
TOTAL	7	...	115	30	1	17	2	172	

Regiment landed at Rangoon—15th and 20th September 1886.
Strength in horses left India—533.
Received draft of horses in 1887 of 60.

Monthly Casualties among horses (including officers' chargers) in 3rd Contingent Hyderabad Cavalry from 1st October 1886 to 1st October 1887.

DAYS.	Year.	Died on voyage to Burma or with effect of.	Anthrax.	Surra.	Kumri.	Fever and sunstroke.	Other diseases.	Killed in action.	Total deaths.	REMARKS.
September and October.	1886	2	...	...	...	...	3	...	5	
November . . .	"	...	...	...	...	...	...	...	...
December . . .	"	...	...	...	1	...	5	...	6	
January . . .	1887	...	...	...	...	...	1	...	1	
February . . .	"	...	...	...	34	...	2	1	37	
March . . .	"	...	...	...	61	...	...	1	62	
April . . .	"	...	...	...	2	1	2	...	5	
May . . .	"	...	...	...	...	...	3	...	3	
June . . .	"	...	...	...	...	...	3	1	4	
Jul . . .	"	...	...	...	28	...	1	...	29	
August . . .	"	...	...	...	25	...	1	1	27	
September . . .	"	...	...	...	70	...	16	...	86	
TOTAL . . .	...	2	...	...	221	1	37	4	265	

Regiment landed at Rangoon—5th, 6th, 7th and 9th October 1886.
Strength in horses left India—529.
Received draft of horses in 1887 of 42.

Monthly Casualties among horses (including officers' chargers) in 1st Bombay Lancers from 1st October 1886 to 1st October 1887.

DATE.	Year.	Died en voyage to Burma or with effect of.	Anthrax.	Sarra.	Kumri.	Fever and sunstroke.	Other diseases.	Killed in action.	Total deaths.	REMARKS.
September and October.	1886	9	...	...	...	...	...	...	9	
November . . .	"	...	...	...	...	...	1	1	2	Including 1 officer's charger.
December . . .	"	...	...	...	...	...	1	2	3	
January . . .	1887	...	...	...	4	...	2	1	7	
February . . .	"	...	1	...	2	...	...	...	3	
March . . .	"	...	...	...	2	...	...	1	3	
April . . .	"	...	...	...	4	...	1	1	6	
May . . .	"	...	4	...	...	...	...	...	4	
June . . .	"	...	8	...	5	...	3	...	16	
July . . .	"	...	...	...	3	...	...	...	3	
August . . .	"	...	5	...	4	...	1	...	10	
September . . .	"	...	...	...	20	...	...	...	20	Including 2 officers' chargers; 14 more cases of kumri under treatment on last day of September, shows 34 cases of kumri during September.
TOTAL . . .	...	9	18	...	44	...	9	6	86	

Regiment landed at Rangoon—1st October 1886.
 Strength in horses left India—552.
 Received draft of horses in 1887 of—None.

Total Monthly Casualties among horses (including officers' chargers) in the 1st Madras Lancers, 3rd Contingent Hyderabad Cavalry, and 7th Bengal Cavalry, 1st Bombay Lancers, from 1st October 1886 to 1st October 1887.

DATE.	Year.	Died en voyage to Burma or from effects of.	Anthrax.	Sarra.	Kumri.	Fever and sunstroke.	Other diseases.	Killed in action or from wounds received.	Total deaths.	REMARKS.
September and October.	1886	28	...	...	1	1	5	...	35	
November . . .	"	...	...	...	14	...	5	2	21	
December . . .	"	...	...	...	25	...	9	4	38	
January . . .	1887	...	...	...	18	...	7	1	26	
February . . .	"	...	1	...	48	...	2	2	53	
March . . .	"	...	...	...	68	6	5	4	83	
April . . .	"	...	...	...	6	9	7	2	24	
May . . .	"	...	4	5	19	1	9	...	38	
June . . .	"	...	9	17	6	1	7	1	41	
July . . .	"	...	...	58	31	3	6	...	98	
August . . .	"	...	5	23	33	1	3	1	66	
September . . .	"	...	...	12	111	...	20	...	143	
GRAND TOTAL . . .	...	28	19	115	380	22	85	17	666	

Regiments landed at Rangoon at the end of September and beginning of October 1886.
 Strength in horses left India 2,092
 Received draft of horses in 1887 of 217

General Remarks on the Health of Horses of the Native Cavalry of the Expedition

The loss of horses on the voyage from India was great, considering the very short passages from Madras, Calcutta and Bombay to Rangoon, and the fair weather experienced by all. There was a smaller percentage of deaths amongst the horses of the Indian Contingent to Malta in 1878 in the height of the hot weather, when the voyage lasted nearly one month.

2. Overcrowding and deficient ventilation, want of space behind the horses to clean out the stalls, was doubtless the cause of death of 28 out of 2,092 horses of the expedition; at first sight not a large percentage, but in reality very excessive, considering the short voyages and the exceptionally fine weather (a loss to Government of perhaps R 5,000 or R 6,000 or more). Longer voyages, with rough weather, would with the same crowding have caused disastrous results.

3. There has been a marked exemption from colic and diseases of the respiratory organs, as compared with India.

4. There has been a most extraordinary tendency to saddle galls throughout the campaign and more particularly during the hot weather and rains, which is quite unaccountable to the oldest cavalry soldiers. Wounds and sores are apparently much longer in healing than in India; this has been noticed everywhere in Upper Burma.

5. The disease or diseases which has or have proved so fatal to horses during the campaign appears as surra or relapsing fever in the Mandalay districts, kumri (paraplejia) in the Shwebo and Yeu districts, kumri and malarious fevers in the Minbu and Taungdwingyi districts, anthrax and kumri in Myingyan and Meiktila districts.

6. The most healthy places for horses have been Welaung in the Myingyan district, Myotha in Mandalay district, Pokoko and Myaing in the Pokoko district. The total loss in horses as per tables from September 1886 to October 1887 has been 666 out of 2,092, without taking into account drafts of 217 horses received late in the season. No records have been kept of ponies owing to constantly fluctuating numbers caused by frequent exchange of Indian for Burman ponies.

7. The symptoms and *post mortem* appearances of the complaints called surra and anthrax appear to have been much the same in the Meiktila and Mandalay districts; but owing to the want of a microscope in the former district, the blood has not been examined; while at Mandalay the spirillae in the blood was discovered. However, there is fair reason for supposing that the disease may not be either anthrax or surra, but some blood poisoning closely resembling the latter, but peculiar to Burma and due either to malarial poison or to unwholesome grasses, the virulence of the disease or diseases varying in different districts greatly; at Lajabin the whole of the horses of the detachment of the 7th Bengal Cavalry either died at that post or shortly after they were withdrawn.

8. Of the four Regiments the 7th Bengal Cavalry have lost most heavily from surra and do not report one recovery from this disease; whereas at least 75 per cent. of the 1st Bombay Lancers at Shanmangè and Meiktila have recovered from the disease, which Veterinary Surgeon Fowler classes anthrax.

9. A great many horses appear to have had worm in the eye, and a good many of these cases were also affected with kumri, going some way to prove the theory prevalent in India as to the connection between the cause of the two diseases.

10. It has been noticed that Australian horses have stood the climate of Upper Burma far better than other breeds, but up to the present time no reliable statistics are available to confirm this statement. However, Arabs, Persians, Beluchees, Country breeds, and all other breeds of all ages, colours, sexes, seem to suffer in equal proportion, but certainly disease, whether anthrax, surra or kumri, appears more frequently to select the strongest and best conditioned animals, and officers, both British and Native, have lost a larger proportion of chargers than the other ranks; in the 1st Bombay Lancers, for instance, seven British officers' chargers and nine Native officers' horses have died or been shot for kumri or have died of anthrax.

11. Ponies, both Indian and Burman, have suffered very little from kumri, and it does not appear at Meiktila or Shanmangè, Mahlaing, Welaung and Myingyan, that there have been any cases of kumri amongst the Indian or Burman ponies of the 1st Bombay Lancers, although at the first three mentioned places there were nearly 60 cases of kumri amongst the horses, which was all the more extraordinary, as the horses at these places stood under cover in sheds and the ponies generally in the open without even the shelter of trees.

12. Surra, however, in Yè-u and Mandalay districts and anthrax at Pinyin (Ningyin) has been very deadly amongst ponies both Indian and Burman.

13. Officers of Native Cavalry are generally of opinion that the Indian ponies brought over are far superior as baggage animals to the Burman as regards hardiness, power and pace when laden.

14. For the treatment of kumri, firing-blisters, hot sheepskins and various other remedies have been tried without the smallest result, and there has as yet been no recorded case of a single recovery. The paralysis always appears as paraplegia, but, never as hemiplegia, varies much in severity in different cases; some animals falling shortly after first attack and never again rising without assistance; others with a slight dragging of the hind legs appear no worse for weeks or even months, but are always unsafe to ride even when the paralysis is barely noticeable.

15. For surra at Mandalay doses of strychnia, arsenic and corrosive sublimate have been tried with other remedies without giving a single recovery up to date. At Meiktila the anthrax cases were treated with carbolic acid and tincture of iodine in $\frac{1}{2}$ dram doses of each three times a day; but whether the numerous recoveries from the complaint which existed at Meiktila was due to this treatment or to the mildness of the disease, it is not possible to say.

16. A few cases of horses, ponies and goats dying of convulsions only a few minutes after first symptoms of disease showed were noticed at Meiktila and Shanmangè; in one of these, a pony, a *post mortem* examination showed a number of small thin worms about $\frac{1}{2}$ inch long, tapering to a point, at one end, each worm imbedded in clot of dark blood in the cellular tissue of the abdominal walls, in the sub-peritoneal connective tissue, in the liver, and, in addition to these, numberless small white worms resembling thread worms were found mixed with the food in the stomach and intestines throughout their entire length.

17. Goats and sheep appear to suffer much from kumri. At Myingyan, Meiktila and other places a very large number of goats were to be seen in September and

October lying paralysed in the hind quarters and only able to move by dragging the hind quarters along the ground.

18. In one instance, a young kid—born of a mother, which had suffered from slight kumri, when two days old, and before it had either eaten or drunk anything but its mother's milk—became completely paralysed, but is now able to progress rapidly, the fore-quarters dragging the hinder part which trails on the ground; this may be an interesting fact to place on record, showing as it does that the germs of the poison which cause the paralysis need not necessarily be absorbed directly from either grass or water. It is noticeable that goats appear sometimes to recover the use of their hind extremities without any treatment, but no authentic case of complete recovery has been brought to notice.

19. The tables attached show the total casualties among horses (not ponies) from each disease, each month separately, and it appears that generally July, August and September are the most unhealthy for horses in Upper Burma, although March and September were apparently the worse months for the Hyderabad Cavalry in the Yè-u and Shwebo districts.

20. All enquiries prove useless to fix the cause of disease upon the water, as horses, whether watered habitually from wells, lakes, rivers, appear to suffer alike; the germs of poison may more likely be found to exist in the grass, and there is strong evidence to support this theory; for instance, it has frequently been noticed that all the animals fed off the same bundle of grass collected by the same grass-cutter have become affected at or nearly at the same time with kumri; and that when the weather and circumstances admitted of proper drying of the grass there was a marked decrease in the cases of kumri for some days afterwards and a decided increase for days after feeding on wet grass.

21. At Meiktila and Shanmangè, where kumri was disastrous, great care was taken under Veterinary Surgeon Fowler's advice to feed on certain upland grasses only, carefully excluding marshland grasses, and under the same officer's advice salt was given daily to all the animals throughout the rains.

22. There have been some fatal cases of sunstroke, of which six occurred at Rangoon on their way with a draft to join the Madras Lancers in the month of April.

Exposure to the sun seems to take much more out of horses and men in Burma than in India; this fact has been pretty generally noticed by most officers.