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LETTER

Dear Editor,

## Re: The first caesarean operation on a mare in South Africa

I recently came across an article in the Journal of the South African Veterinary Association, titled, "A brief history of equine private practice in South Africa," by CHB Marlow.

In this article it states that, "...In 1967 Marius van Tonder was transferred to the VIC, Middelburg and Chris Marlow performed, as far as can be ascertained, the 1st caesarean section on a thoroughbred mare in SA."

I would like to challenge this incorrect version of history, and state that the first caesarean section in South Africa was conducted 65 years ago in 1957 by my grandfather, Dr Mieczyslaw (Mietek) Jan de Sas Kropiwnicki.

This successful operation was published in The Veterinary Record in 1958, attached please find a copy of his article in Figures 1-2 (Kropiwnicki 1958).

With this in mind, I would like the Journal of the South African Veterinary Association to acknowledge that Dr Mieczyslaw (Mietek) Jan de Sas Kropiwnicki was the leading South African (or even African) pioneer in this field.

Dr Mieczyslaw Jan de Sas Kropiwnicki (24/2/1912–15/8/1971), also known as "Dr de Sas" was born in Nizniow, Poland on 24 January 1912 and graduated as a veterinarian in Poland. As his qualification was not recognised in the UK, he took his MRCVS in Glasgow. In 1948, he came to South Africa and practised in the Transvaal. Subsequently, he moved to Tweespruit, Ladybrand and Barkley East, where he practised from 1952 to 1966. From 1966 to 1969, he served as Government Veterinary Officer on contract to the Botswana

Government. He was stationed at Machaneng in the Tuli Block. While in Botswana, he suffered a stroke and had to retire. He died on 15 August 1971.

Interestingly, this event was also informally described by the wife of Dr de Sas, Ms Aleksandra de Sas Kropiwnicka in Chapter X of her book titled, in Africa". https://www.amazon.com/ Olenka-Africa-Aleksandra-Sas-Kropiwnicka-ebook/ dp/B00AZ0FQNQ and later by myself. (Knott 2021)

Attached please find some photos for your interest (Figures 3-6).

## **Michael Knott**

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## References

Knott, M., Witkowski, M., 2021, Dr Mieczyslaw Jan de Sas Kropiwnicki (1912–1971): The first Polish veterinarian to perform a caesarean section on a brood mare, Med Weter 77(2), 106-110. https://doi. ora/10.21521/mw.6495.

Kropiwnicki, M.J.S., 1958, Caesarean operation on a mare, Vet Rec 70(27), 557.

9 Vol. 70 THE VETERINARY RECORD Caesarean Operation on a Mare M. J. S. KROPIWNICKI Barkly East, Cape Province, South Africa A CAESAREAN operation was recently performed on a grey Thoroughbred mare—'Smart
Girl' by "To You II" out of "Fashionable."
The mare, owned by Mr. M. Englebrecht of the farm
"Onzerust" in the Barkly East district of South

Africa, is the dam or three winners.

Reason for Performing the Operation

The mare was suffering from dystokia, caused by
the lumbo-public position of the foetus, with the fore
legs flexed and the head directed backwards. The
foal was dead (rigor morits having set in), and both
the vulva and the vagina were swollen. It was
impossible to correct the position of the foal in spite
of epidural anaesthesia.

Anaesthesia – half oz. of chloral hydrate were dissolved in 4 gal. of water and introduced through the stomach tube. The operative area on the right flank was infiltrated with 40 ml. of 3 per cent. procaine hydrochloride.

Control of the Animal

The mare was left in the lateral position in which she was lying—being unable to rise. The fore legs were stretched forward and secured with a rope, and the hind legs were stretched backwards, and held by two natives, while a third native held the head.

by two natives, while a third native neid the nead. Technique—
After preparing the operative field and the surrounding area by shaving and disinfecting with Dettol, an incision about 15 inches long was made through the skin, abdominal muscles, and the perioneum. The bulging-out intestines were held don effectively by the farmer who was assisting.

The hind legs of the foal were located through the wall of the uterus, and by holding these, part of the terrus was pulled out. An incision about 12 inches long was then made through the wall of the uterus, and the foetal membranes were torn open, and the foal removed. The uterus tore along the incision for a further 4 inches during the process of removing the load.

foal.

Then, after removing the loose parts of the placenta, 2 oxytetracycline pessaries and approximately 1 oz. of sulphanilamide powder were intronately ½ oz. of sulph nuced into the uterus.

duced into the uterus.

The incision in the uterus was closed with continuous Lembert sutures and 2 rows of interrupted sutures using No. 3 chromic catgut (20 days). The sutured incision was then dusted with sulphanilamido powder. The abdominal muscles and the peritoneum were stitched with a row of interrupted sutures, using No. 3 catgut doubled. The subcutaneous muscle was stiched separately also using interrupted sutures. The skin was then closed with 5 mattress sutures and the edges finally closed with interrupted sutures. A piece of gauze was then stuck on to the area as a protection against flies.

Thirty international units of oxytocin were injeintramuscularly and 3,000,000 units of procepnicillin G in aqueous suspension were also inject The mare rose immediately upon being released.

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penicillin G in aqueous suspension were also injected.
The mare rose immediately upon being released.
Subsequent History
Three days after the operation the author carried out an examination on the mare which was grazing at the time. Her temperature was normal, but a swelling in front of the udder was apparent, and this the author presumed to be due to histamine compounds from the retained part of the afterbirth. Intramuscular injections of 3,000,000 units of penicillin and 3 ml. of stilboestrol were administered.

The owner of the mare was instructed to inject 5 ml. of 5 per cent. promethazine-hydrochloride solution for the next 2 days, and thereafter 2 g. of dihydrostreptomycin and 3,000,000 units of penicillin alternatively for the following 4 days. Altogether the mare received 12,000,000 units of procaine penicillin G and 8 grammes of dihydrostreptomycin.

The author again visited the stud 7 days after the operation, and removed the mattress sutures. The temperature was normal and the mare was grazing contentedly. The owner reported that the remaining part of the placenta had been passed 2 days previously, days after the operation, the mare was grazing contentedly.

ously. Eight days after the operation the mare was on

On the tenth day after the operation the last stitches were removed.

stitches were removed.

Remarks,
The operation described above was performed in the open veld under the blazing South African sun, while the wind occasionally caused dust, hairs, and dry grass to settle on the wound. The Europeans and natives who assisted were quite untrained and inexperienced, so that it was difficult to get them to observe the rules of asepsis. The mare was 14 years old and had spent the night in labour. The author was unprepared for the operation, and consequently had no choice of anaesthetics—his surgery being 20 miles distant. There was need for haste in performing the operation as it was impossible to provide any ing the operation as it was impossible to provide any kind of shade, and the blazing sun caused the blood

kind of shade, and the blazing sun caused the blood todry rapidly. It has generally been accepted that laparotomy on a horse is dangerous because of the risk of infection ani peritonitis, and because of the difficulty in handling the considerable amount of bulging intestines. Thus, taking the unfavourable and difficult conditions described above into account, it would appear that there is no appreciably greater risk attached to laparotomy in a horse than there is in other animals, such as sheep, cows, etc. The author frequently performs caesarean operations on sheep and cows, and he considers that all in all there is not much more work attached to carrying out this operation on horses. ling to Thus,

The mare was served on December 25th and 28th, 1957, about 7 weeks after the operation, and 6 weeks later a blood sample was sent to the Veterinary Research Institute at Onderstepoort. The result was positive and proved that the mare was a server of the same was sent to the Veterinary Research Institute at Onderstepoort. The result was nescaren institute at Onderstepport. In a result was positive and proved that the mare was again in foal, and unbequeth she did ferried on 298 (10v. 1958).

Figure 1: Caesarean operation on a mare

## THE VETERINARY RECORD

THE JOURNAL OF THE BRITISH VETERINARY ASSOCIATION

EDITOR: CHARLES MITCHELL 7 MANSFIELD STREET PORTLAND PLACE LONDON W.1 MUSeum 6641

MB/AB

13th December, 1957.

Dr. M.J. Sas Kropiwnicki, Lek.Vet., M.R.C.V.S., Box 33, Corner Grahum and Brownlee Streets, Barkly East, Cape Frovince, South Africa.

Dear Dr. Sas Kropiwnicki,

Thank you for your letter enclosing a paper entitled "Caesarean Operation Carried Out on Mare". I am passing Vits material immediately to one of the members of our scientific advisory panel, and I hope to be able to write to you again within the course of the mext week or so.

Yours sincerely,

Many Bradeling

assistant to the Editor.

Figure 2: Journal reply



Figure 3: Smart girl



Figure 4: Mietek and Olénka in the 1950's



Figure 5: Typical working conditions on the rural farms



Figure 6: A newspaper article describing the event