



**University of AL-  
Qadisiyah**



**جمهورية العراق**

**وزارة التعليم العالي و البحث العلمي  
جامعة القادسية-كلية الطب البيطري**

# **COLIC IN HORSES**

**student**

**Ahmed Jaber Rade**

**Research submitted to the college of  
Veterinary Medicine, University of Al-  
Qadisiyah, to obtain a bachelor's  
degree**

**Supervised by  
Assist, Prof. Dr. Abdulsatar Salman  
Hamza**

بسم الله الرحمن الرحيم

(( قل هل يستوي الذين يعلمون والذين  
لا يعلمون انما يتذكر اولوا الالباب ))

الزمر : ٩

بسم الله الرحمن الرحيم

((يرفع الله الذين امنوا منكم والذين اوتوا  
العلم درجات))

المجادلة: ١١

صدق الله العلي العظيم



## ***DEDICATE***

I dedicate this research to ...my dear parents, to those who were candles in my study paths.

I dedicate this research to...the respected esteemed doctor abdulsatar salman who supported me in completing the research.

I dedicate this research to...my college and the scientific edifice of the College of Veterinary Medicine.

I dedicate this research to...the respected discussion committee.

I dedicate this research to...my friends(Assad krabat,Rassol Ali)

## **PRESENTER:**

In this research we will discuss a topic of colic in horse.



as horse are the closest animal to humans since ancient time.

as humans used them for riding transportation wars and others , because colic is one of the most serious diseases that afflict the equine species we will stand on the most important causes of the disease its symptoms the possibility of its treatment prevention before infection and the most important cases the veterinarians have seen and breeders have suffered in different forms of colic.

### **:Definition of colic and its main causes**

Colic is known as any pain in the abdomen

Or it is a pathological sign that arises from the gastrointestinal tract infection with malnutrition or parasitic diseases and is clinically characterized by the presence of abdominal pain [1]



We can say that colic indicates a painful problem in the abdomen of a horse, because colic is often unexpected and cannot be prevented in most cases, and horses are naturally prone to colic, but fortunately more than 80% of types of colic respond to .treatment

Horses are one of the species that suffer from colic more than other animal species, as they do not have a sensitive digestive system similar to the human digestive system [2]

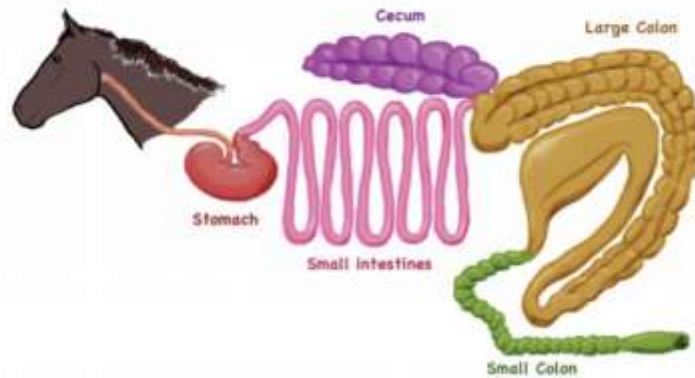
Colic is not necessarily the cause of the emergence of an imbalance in the food system or a problem in the digestive system. Rather, in some cases, a member of the horse's body has been infected with a specific infection, but the change in the diet remains one of the most important reasons and includes the change of feed, the number of times a day and the amount of feed [3]

Or it may be gorging on large amounts of pills and in an exaggerated manner [4]



Especially grains that are high in protein and  
.have a role in causing sudden colic in horses

Figure (1)  
Digestiv system  
In  
horse



Thus, we can say that the following reasons  
are the basis for the occurrence of colic in  
horses


1-acute bowel obstruction

2-eat poor-quality, indigestible foods[5]

3-eat large quantities of pills without any  
additions to the diet

4-infections of the intestine, especially  
resulting from eating large amounts of  
sand [6]

5-eat large amounts of fresh green food,  
which leads to the gathering of large  
quantities of gases.




6-colic also occurs as a result of the increased intestinal movement that often follows the exposure of horses to hard work, or drinking cold water immediately after exertion infection with Ascaris parasite and some other worms.

7-infection with salmonellosis, as well as viral arteritis, especially in horses.

8-A problem with the teeth [7], which may be broken or not serrated, as the horse does not have the ability to grind food well.

9-pregnant females are prone to colic, as it may cause uterine dilation, filling [8] a larger area inside of the intestine, such as the intestine, causing colic.

10-the great effort exerted by the horse, such as running for long distances or using it in sports races, or a jar for some weights. From there, eating dry or green food directly and in large quantities causes colic to the horse, especially if the horse suffers from a digestive problem in the first place.



11-horses with bad eating habits[9] that swallow directly or that ingest any foreign object,for example,plastic bags,small pieces of wood,cardboard,etc.

12-horses are exposed to cold air curenents[10] or sometimes a sudden change in the weather,or perhaps paddle problems such as high humidity.



figure(2)big size of abdomain of horse



## :types of colic

### .Impact colic

This type of colic occurs as a result of obstruction of the large intestine [11] due to the accumulation of large quantities of dry and rough food, where the intestine stops moving with the occurrence of severe constipation and is also called colic

.obstruction or collision

- 

.flatulence

It occurs due to the gathering of large amounts of gases inside the intestine, causing

.the intestinal distension



Spastic cramps.

It occurs as a result of strong intestinal contractions accompanied by strong pain to the horse.

Sand gripe [12]

It occurs as a result of the horse eating food that contains quantities of sand, or the environment may be sandy, as in the horses in the Arabian Gulf region

Drift gripe

It occurs when part of the intestine moves or drifts to another area within the abdominal cavity and is dangerous to the life of the horse if it returns to its previous position

.

Twisted bowel colic

It occurs when part of the intestine is wrapped by itself [13].

It is often a little



incidence, as it constitutes 4% of the types of colic, but it is considered very dangerous and often causes death

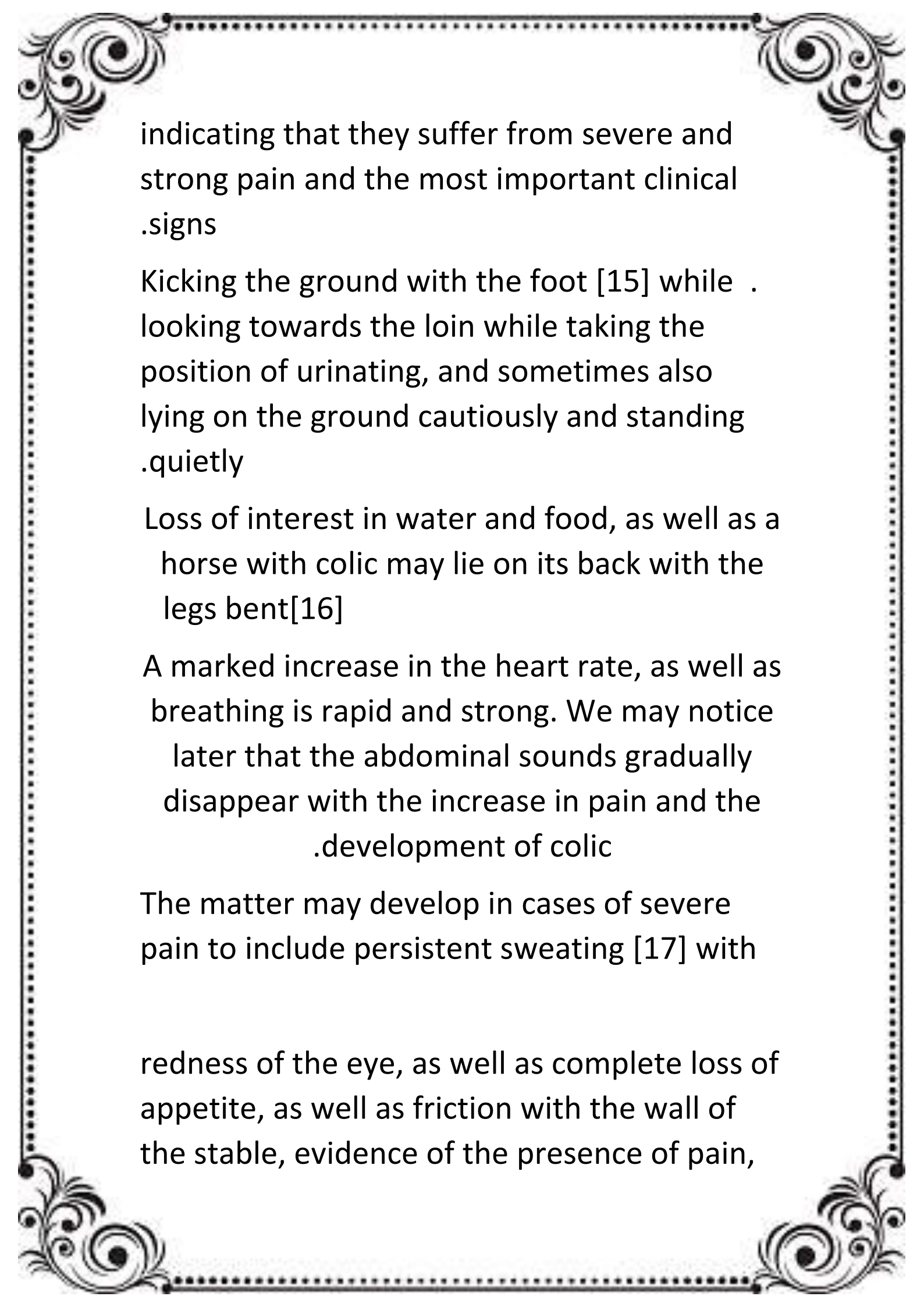
Strangulation cramps

This is an uncommon but dangerous type that occurs when the blood supply to the intestine is cut off, as it supplies the intestine with blood through the mesenteric ventricular artery (branches of the abdominal aorta)

Thus, we can say that colic in horses can be called a name according to the affected area, such as if an injury to the kidneys is called a kidney, if it affects the bladder it is called a cyst, and if it affects the intestines intestinal [14]

**The most important clinical symptoms:**

When horses suffer from colic, we notice the emergence of clear signs of disease, as well as behaving strangely with movements



indicating that they suffer from severe and strong pain and the most important clinical .signs

Kicking the ground with the foot [15] while . looking towards the loin while taking the position of urinating, and sometimes also lying on the ground cautiously and standing .quietly

Loss of interest in water and food, as well as a horse with colic may lie on its back with the legs bent[16]

A marked increase in the heart rate, as well as breathing is rapid and strong. We may notice later that the abdominal sounds gradually disappear with the increase in pain and the .development of colic

The matter may develop in cases of severe pain to include persistent sweating [17] with

redness of the eye, as well as complete loss of appetite, as well as friction with the wall of the stable, evidence of the presence of pain,

the absence of dung, and sometimes the exit of small and dry amounts, and in the following stages we notice flatulence

### **:Diagnosis**

In the event that the horse suffers from colic, the veterinarian takes adequate checks for the case to ensure that the horse is injured through

First. The signs observed on the horse, for example, how to stand or the way to lie on the ground, as well as the size of the abdomen, and does the animal make any emotions or movements when touching and feeling the abdomen

Second. Take the complete information from the breeder, such as the date of the case, or is it a group if it is individual? Is the animal

subjected to efforts before the injury? Quality and quantity of food Cleanliness of the water



intended for drinking After that we do the  
:following checks

Usually in normal cases the intestine makes sounds as a result of intestinal movement [18]. We can hear them after listening in the area along the last shaft towards the sternum for a period of 3 minutes. These sounds .disappear when colic occurs

The condition of the stool, if the stool is liquid, means acute colitis and occlusion of the cecum, but if the quantity is few and dry, and the exit process occurs in long periods of time, evidence of a blockage in the intestine due to the presence of large quantities of dry .coarse food

Examination through the rectum [19]. If the intestine is full of gases, evidence of emphysema or it may be filled with fluid, as well as the presence of large quantities of stool in case of satiety

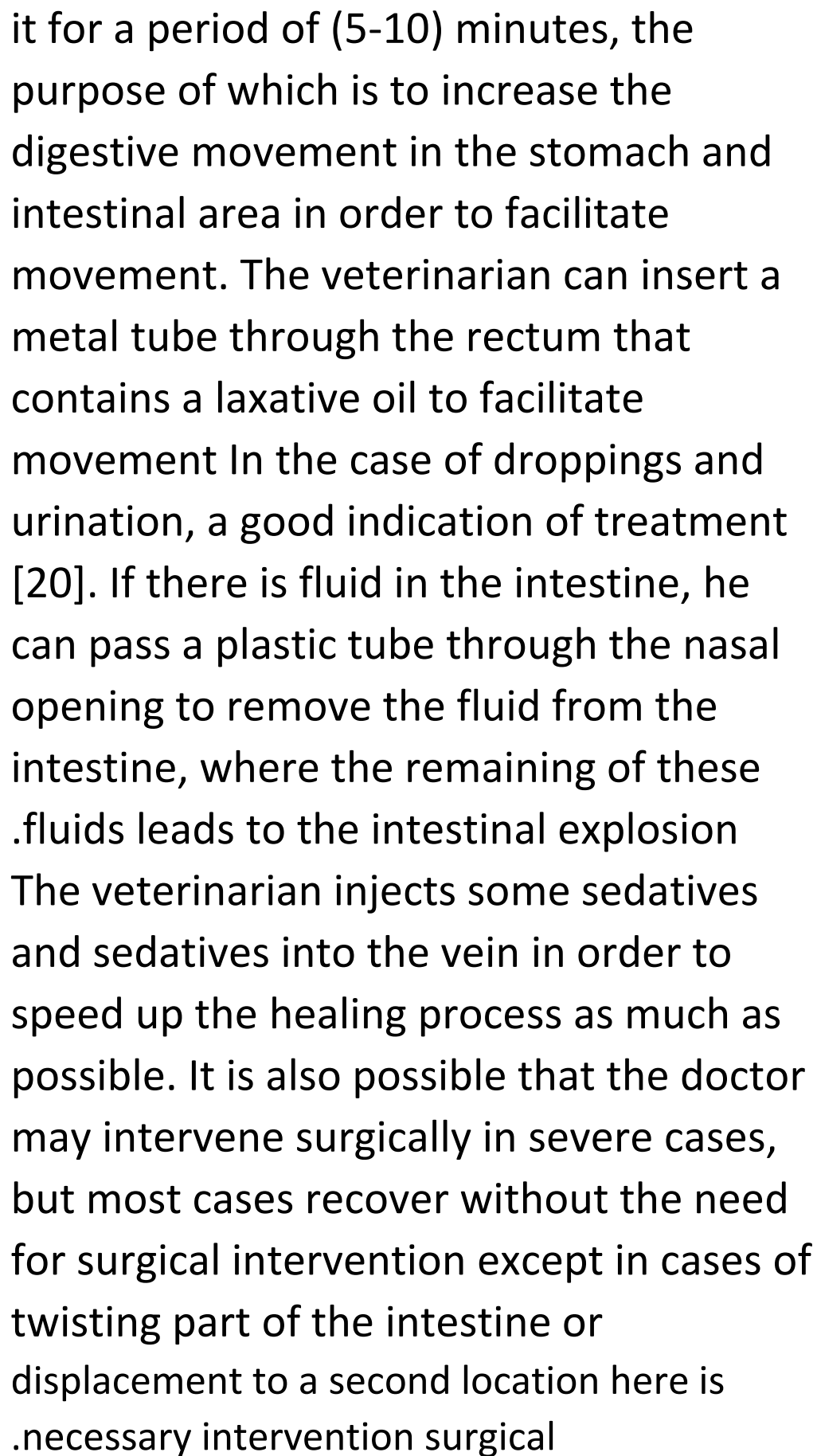
In the event of vomiting and some food coming back through the mouth, this indicates that the condition has worsened .and may cause the stomach to burst



Figure (3) A horse suffers from colic, where we notice the state of looking towards the side

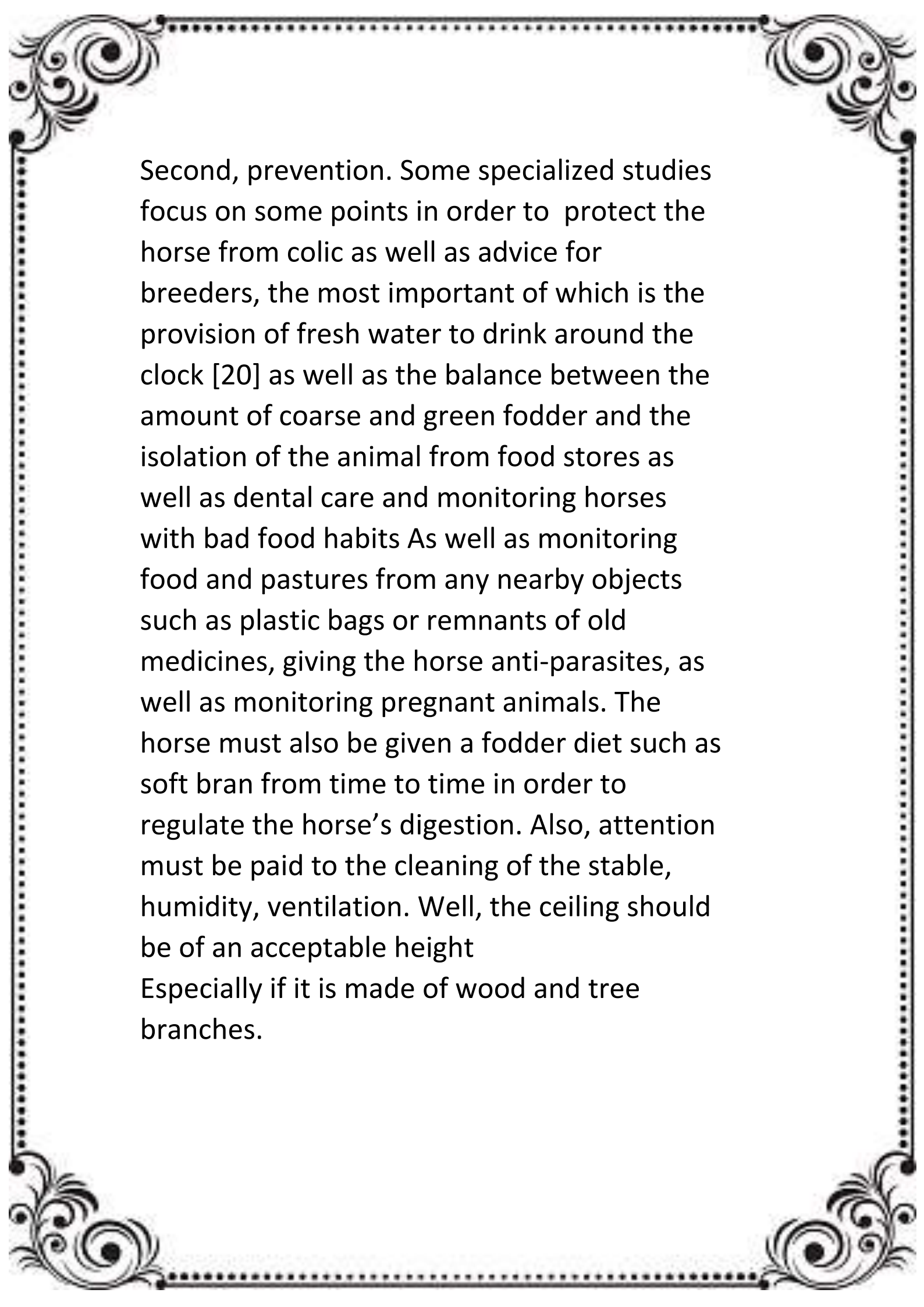
### **:Treatment and prevention**

First, treatment. The first step of treatment is walking, where it is possible to take the horse on a tour without riding



it for a period of (5-10) minutes, the purpose of which is to increase the digestive movement in the stomach and intestinal area in order to facilitate movement. The veterinarian can insert a metal tube through the rectum that contains a laxative oil to facilitate movement. In the case of droppings and urination, a good indication of treatment [20]. If there is fluid in the intestine, he can pass a plastic tube through the nasal opening to remove the fluid from the intestine, where the remaining of these fluids leads to the intestinal explosion. The veterinarian injects some sedatives and sedatives into the vein in order to speed up the healing process as much as possible. It is also possible that the doctor may intervene surgically in severe cases, but most cases recover without the need for surgical intervention except in cases of twisting part of the intestine or displacement to a second location here is necessary intervention surgical.





Second, prevention. Some specialized studies focus on some points in order to protect the horse from colic as well as advice for breeders, the most important of which is the provision of fresh water to drink around the clock [20] as well as the balance between the amount of coarse and green fodder and the isolation of the animal from food stores as well as dental care and monitoring horses with bad food habits As well as monitoring food and pastures from any nearby objects such as plastic bags or remnants of old medicines, giving the horse anti-parasites, as well as monitoring pregnant animals. The horse must also be given a fodder diet such as soft bran from time to time in order to regulate the horse's digestion. Also, attention must be paid to the cleaning of the stable, humidity, ventilation. Well, the ceiling should be of an acceptable height Especially if it is made of wood and tree branches.

## **Conclusion**

After studying colic and finding out the most important causes and symptoms, we can get rid of colic. It is not a disease in itself, but rather is prone to disease

After researching specialized studies and interviewing many veterinarians, we also took information from horse breeders, we came to the facts that colic is a serious disease that affects the digestive system in particular, as it is characterized by its many causes and may lead to sometimes deaths among horse species. Also, material losses can be avoided in cases of treatment. Immediate colic as soon as possible and avoid disease progression

It is important to know at the end of the research and a mechanism has been reached which is the prevalence of disease in central and southern Iraq in horses due to high temperature, as well as the effort exerted as well.

## References

- 1. Rook,A.J.&tallowin J.R.B(2003) Grazing and pasture management for biodiversity**
- 2. Meyer,H,Radicke,A,Kienzle,E,wilke,S&kleffen,D(1993)**
- 3. Southwood,L,(2012)patient signalmen and hostory, in southwood,L(ED)practica guide to equin e colic**
- 4. Veterinary Advice on colic Dr.Tim mair,horse**
- 5.Special Report on disease of the horse Animail industry Burean**
- 6. كتاب امراض الحيوان، د. عبد الوهاب عبد الرزاق الجبوري، ص ١٢٢، مطبعة التعليم العالي ، جامعة بغداد لسنة ١٩٨٩**
- 7. المغص في الخيول، الدليل العلمي للمغص في الخيول، لويزلي ساووثود ، مطبعة جون ويلي ص٢٨٧ لسنة ٢٠١٢**
- 8. كتاب المغص في الخيول، كرستين كينج، دار النشر بيب هورس ، ١٩٩٩، ص١٣٢، جامعة كورنيل**
- 9. كتاب الخيل العربي وفضلها على الانسان العالمي ، ص٦٧، الدار العربية للنشر ١٩٧١**
- 10. Little.D&Blikslager .A.T(2002)factors associated with development of ileal impaction in horse with surgical colic**

11. **Deidre M.carson Bvs .MRCVS& sidaney, W.Rickettes**
12. **New manual of homeopathic veterinary medicine Boerice&tafel 1873**
13. كتاب التقرير السنوي ،المجلد الثالث، المؤلف محطة التجارب الزراعية ، ولاية اوهايو .دار النشر المركزي ١٨٨٥ ، جامعة إلينوي-شامبين
14. لمحة عامة عم المغص في الخيول، د. جيمس ن-امو ، كلية الطب البيطري- جامعة جورجيا
15. **Kentucky Equine Researh, Inc, (N.D).Deciphering hay quality, Equinenews**
16. **Hudson.J.M,Cohen,N,D,Gibbs,P.G.&thompson.J.A.(2001).Journal of the American veterinary medical Association**
17. كتاب الامراض الرئيسية للحصان ، ص٥، دار النشر بوسارت **Latrob,Co&HS-Dossart** المؤلف ، جامعة كاليفورنيا. ١٨٩٨
18. **Diseases of domestic animal, piag 180, J,A, 1885**
19. كتاب امراض الحيوان، د. عبد الوهاب الجبوري ، مطابع التعليم العالي، ص١٢٣، جامعة بغداد، لسنة ١٩٨٩
20. **The Dick Vet equine practic, Roslin, Midlothian**
21. **University of Kentucky College of Agriculture, Lexington, Ky, 40546.**