

دليل أمراض الدواجن شركة سيف - شرح وتعليق د/السيد صبحي

بسم الله الرحمن الرحيم

الأمراض البكتيرية التي تصيب الدواجن

أولا :- عدوى بكتيريا الكولون COLI INFECTIONS

التعريف :- هو مرض بكتيري يصيب جميع الطيور وتكون الإصابة إما عامة مما يؤدي الي التسمم الدموي وإما خاصة أو موضعية في مكان محدد مما يؤدي الي حدوث التهابات موضعية كالتهاب السرة في الكتاكيت ، والتهاب قناة البيض في الطيور البالغة.

المسبب :- بكتيريا الإيكولاي (الأمعاء تمثل المكان الطبيعي لها)

{ O1-O2-O8-O35-O36-O78 }

فترة الحضانة :- ٢٤ - ٤٨ ساعة.

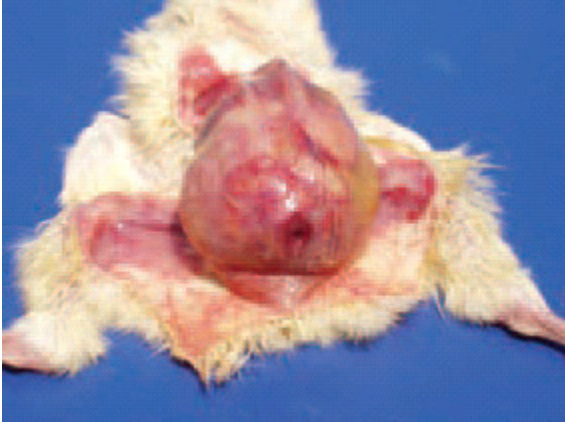
الوقاية :- ضبط الحرارة والتهوية والفرشة.

العلاج :- إعطاء المضادات الحيوية مثل الكولستين، الفلموكين والكلورتتراسيكلين ، واللينكوميسين أو اسبكتينومايسين، أو الفلوريكول أو الأموكسيسيلين لمدة ٥ أيام.

الأعراض والعلامات التشريحية :-

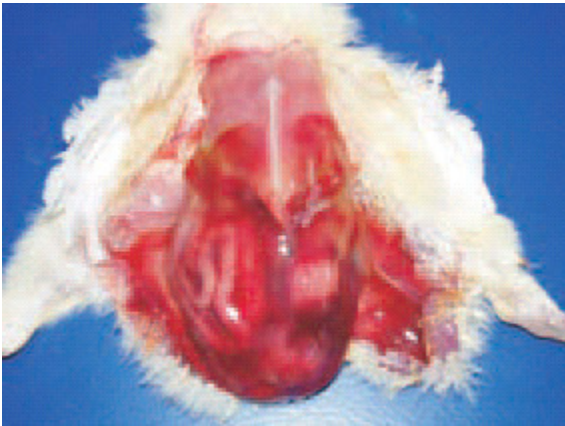
ESCHERICHIA COLI INFECTIONS

(التهاب السرة في الكتاكيت)



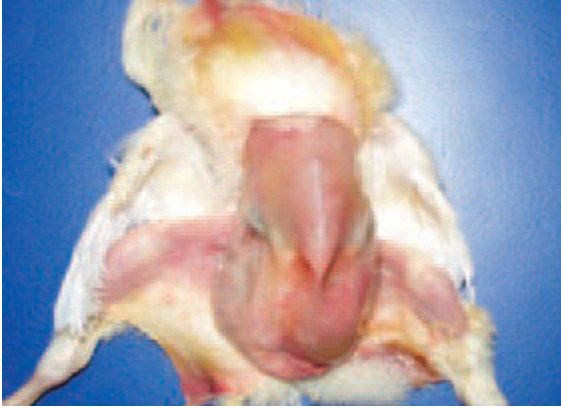
1. Omphalitis (navel infection). It is characterized with reddening and tissue oedema in the umbilical region.

(التهاب السرة مع التهاب بريتوني في الكتاكيت)



2. Escherichia coli infections are widely distributed among poultry of all ages and categories. They are primarily related to poor hygienic conditions, neglected technological requirements or to respiratory and immunosuppressive diseases. A common sequel of navel infections is local or diffuse peritonitis.

(انتفاخ في البطن في الكتاكيت مثل مادة الجيلي)



3. When the amount of egg white is bigger (in larger eggs), it impedes the absorption during hatching, resulting in subcutaneous jelly-like oedemas that are an excellent media for the development of *E. coli* infections.

(تأخر امتصاص كيس المح في الكتاكيت)



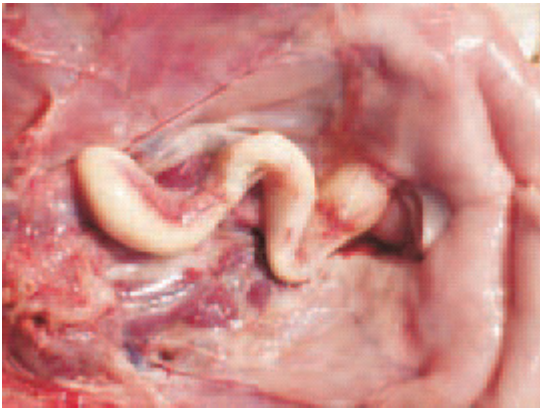
4. The delayed absorption of the yolk sac is a prerequisite for *E. coli* infections and peritonitis. The most commonly identified *E. coli* serotypes are: 01:K1 (L); 02:K1 (L) and 078:K80 (B).

(آخر مراحل التهاب كيس المح مع حدوث عفن في منطقة البطن)



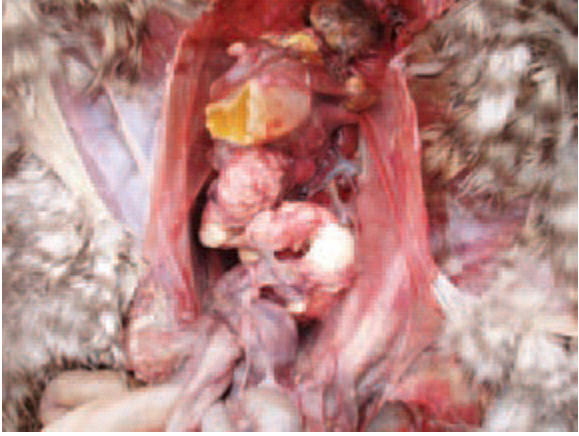
5. At a later stage of the infection, the yolk content is a cause of putrefactive necrotic processes in the peritoneal cavity. The abdomen is bloated. The entire abdominal wall is affected by a moist gangrene (maceration).

(التهابات فى قناة البيض مع تضخم فى الجدار)



6. Salpingitis (inflammation of the oviduct). Salpingitis due to E. coli infections could be also observed in growing birds. The oviduct is dilated, with thinned wall and filled with caseous exudate all along its length.

(التهابات فى قناة البيض)



7. Salpingites are among the commonest causes for death in layer hens. *E. coli* penetrates from the cloaca via an ascendant route. Predisposing factors are the intense egg laying and the associated estrogen activity.

(. التهابات فى قناة البيض مع وجود مواد متجبنة فى قناة البيض)



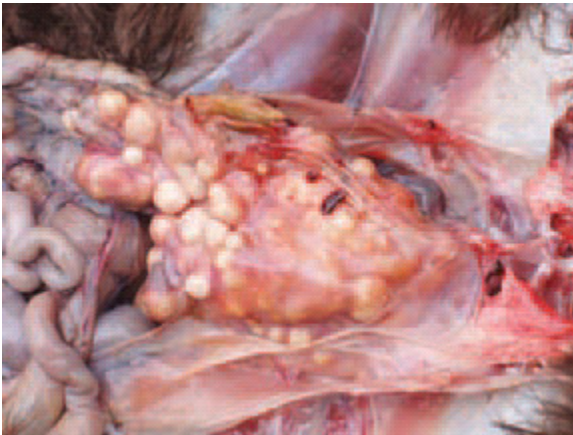
8. Salpingitis. In older cases, the caseous masses in the oviduct have a lamellar structure. *E. coli* organisms are usually found in excreta because of their presence in avian and mammalian intestine, the birds are constantly at risk of infection through contaminated water, dust, faeces and environment.

(. التهابات فى قناة البيض مع مواد متجبنة ربما تصل الى جميع الاحشاء الداخلية)



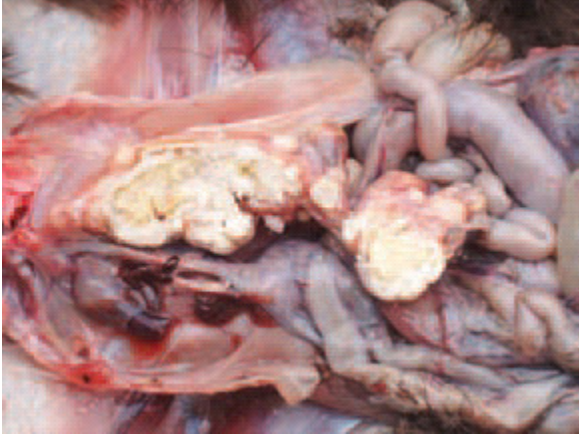
9. Salpingitis. Retained yolks among the caseous masses in the oviduct. In some cases, when the systemic resistance is lower, places, contaminated with *E. coli*, such as intestine, genital tract or nasal passages, could be latent sources of infection.

(. التهابات في قناة البيض مع مواد متجبنة)



10. Compression and compactedness of caseous necrotic masses after losing a part of their water content in the oviduct of a layer

(. التهابات في قناة البيض - قطاع عرضي)



11. Salpingitis. An element of Fig. 10. Longitudinal cross section of the oviduct.

(التهاب الغشاء البريتوني في الدجاج البياض)



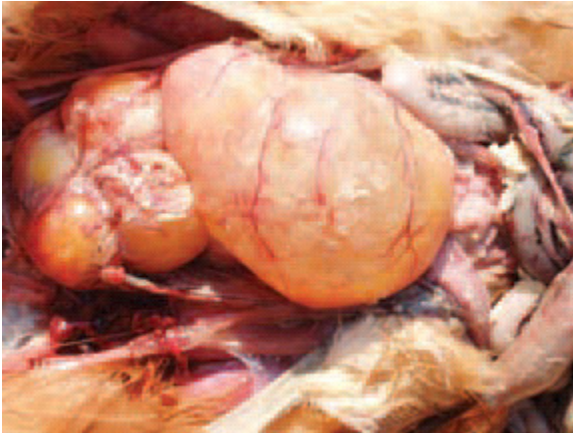
12. Egg yolk peritonitis in a layer hen consequently to E. coli salpingitis. The chickens could be hatched with a latent infection, when E. coli is present in ovaries and the oviduct. In these instances, the infection could turn into an overt infection under the influence of some stress factors or lesions.

(التهابات في المبيض)



13. (inflammation of the ovary) consequently to a salpingitis due to ascendant E coli infection.

(تهتك الحويصلات في المبيض)



14. Cystic degeneration of ovarian follicles following an E. coli oophoritis.

(التهابات جلدية في دجاج التسمين)



15. Cellulitis (inflammation of the subcutaneous tissue that affects also the overlying skin). It predominates in broilers and is detected mainly in slaughter-houses. Macroscopically, the lesions are with a yellowish-brown colour.

(التهابات جلدية فى دجاج التسمين)



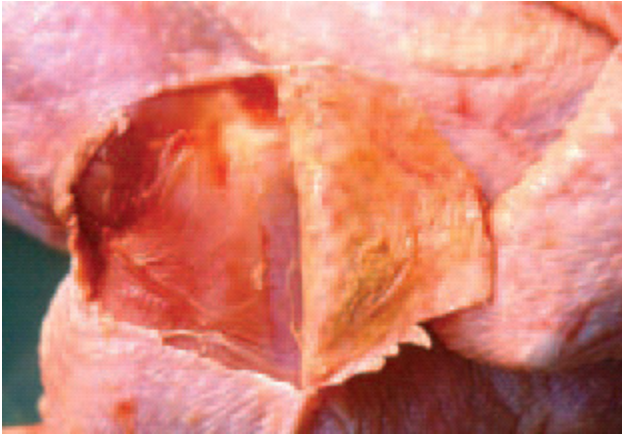
16. Cellulitis. Affected areas are mostly in the region of the back and the thighs.

(التهابات جلدية فى دجاج التسمين)



17. In some cases, the lesions are slightly protruding over the adjacent healthy skin.

(التهابات جلدية في دجاج التسمين)



18. Cullulitis. In the subcutaneous tissue, thick fibrinous plaques are often found out.

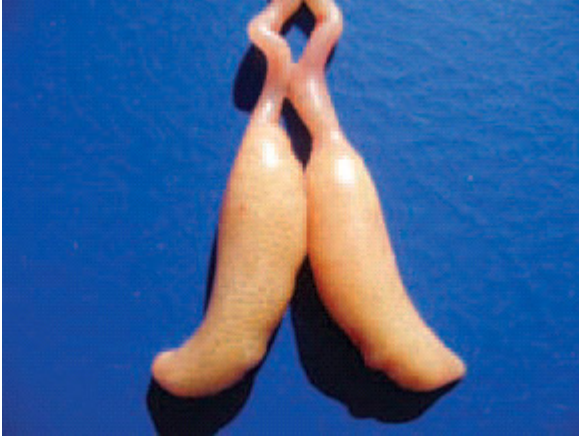
(تكون انتفاخات تحت الجلد في الوجه في الدجاج البالغ)



19. In some cases with adult birds, in the region of the head, subcutaneous masses of

thick serofibrinous exudate resulting from a local E. coli infection could be detected.

(انتفاخ في الاعورين واحتباس السوائل بها)



20. Enterocolitis. Enterotoxigenic E. coli that produce toxins, cause the secretion and retention of fluids in some intestinal loops and especially in the caeca. Clinically, diarrhoea and de-hydration are observed. The intestines are pale and distended, particularly the caeca that are overfilled with fluid containing many gas bubbles

(التسمم الدموي في الكتاكيت)



21. . Neonatal E. coli septicaemia. Chickens in the first 24 - 48 h after hatching are affected. The death rate during the first ten days is higher and could reach 5 - 6%. The yolk sac is unabsorbed. The spleen is enlarged. Some days later, the typical serofibrinous polyserositis lesions, affecting the peritoneum, the pericardium, the air sacs and the liver capsule are manifested.

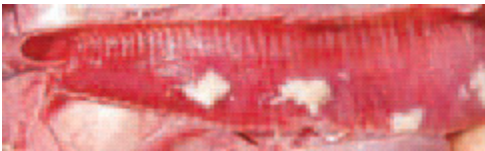
(التسمم الدموي في الاعمار الكبيرة)



22. Acute E. coli septicaemia in layer hens. Clinically and morphologically, the acute E. coli septicaemia could resemble fowl cholera or fowl typhoid. It is encountered in both young and sexually mature birds. The stress in the beginning of egg-laying is considered as an important predisposing factor. The parenchymal organs are enlarged and hyperaemic. Sometimes, the liver has a greenish colour and is mottled with multiple small necrotic foci. Also, pericarditis, peritonitis and petechial haemorrhages on serous coats are present.

(التهابات فى القصبة الهوائية فى حالات العدوى المركبة)

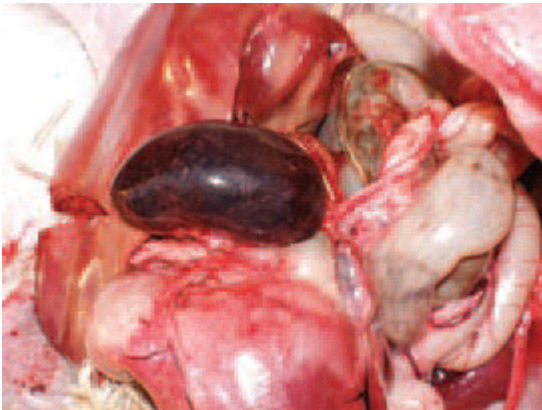
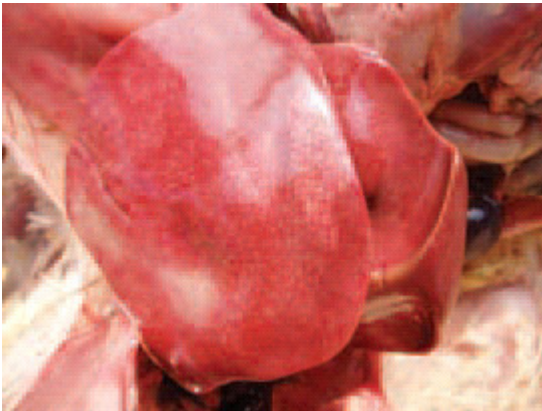
(تكون مواد فيبرينية على الاحشاء الداخلية)





23. 24. 25. *E. coli* septicaemia of a respiratory origin. In such cases, the respiratory mucosa damaged by infectious and non-infectious agents (ND viruses including vaccinal strains, IB, TRT, mycoplasmae, high ammonia levels) is the entrance door of the *E. coli* infection. The lesions are principally observed in the respiratory tract (trachea, lungs and air sacs), but some adjacent serous coats (pericardium, peritoneum) are also affected and thus, the picture of a typical serofibrinous polyserositis is produced.

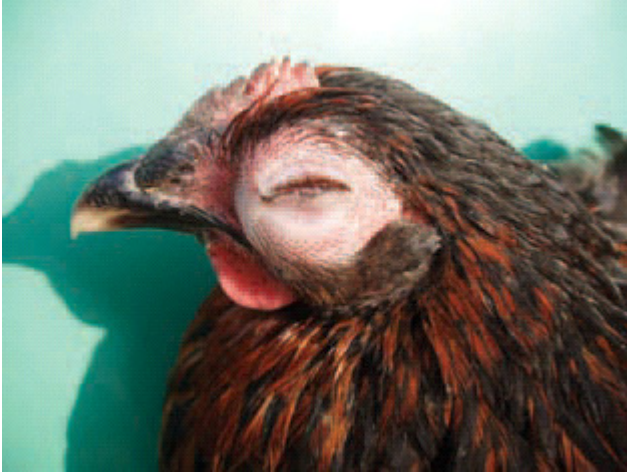
(علامات التسمم الدموي تضخم في الكبد والطحال)



26. 27. *E. coli* septicaemia secondary to enteritis. It is most commonly encountered in turkeys. The intestinal mucosa, damaged by the haemorrhagic enteritis virus (see Adenovirus infections), is the entrance door of *E. coli* infection. The most typical lesions

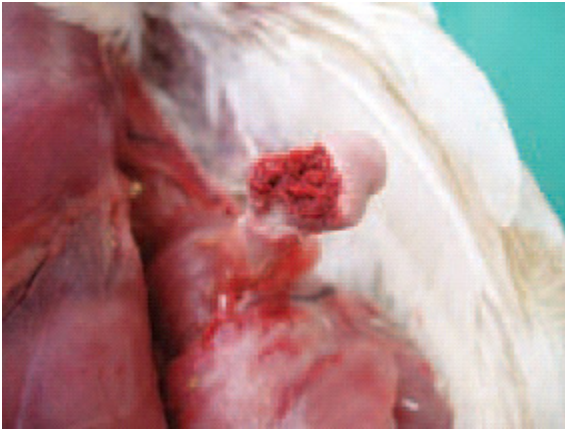
are the marked enlargement, hyperaemia, haemorrhages and necrosis of the liver and the spleen.

(التهابات في العيون)



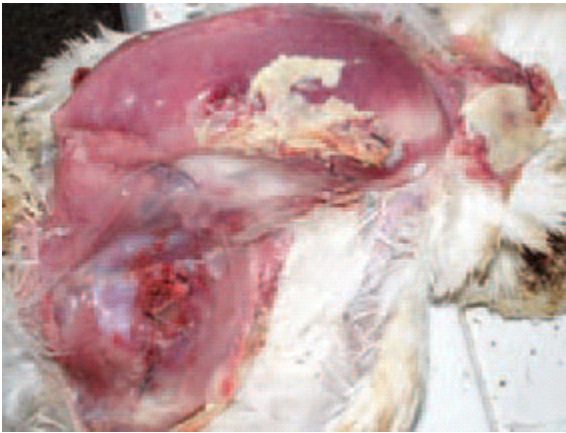
28. Panophthalmitis (inflammation of all tissues of the eyeball). Generally, it develops secondary to E. coli septicaemia and is usually unilateral.

(التهابات في المفاصل)



29.. Arthritis, Osteomyelitis and Osteonecrosis (inflammation of joints, bone marrow and bone necrosis, respectively). The lesions are a common sequel to E. coli septicaemia. Clinically, lameness, prolonged lying down, dehydration and retarded growth rate are observed. The coxofemoral joints, the femur and tibiotarsal joints are most commonly affected. The bacteria colonize the physes of growing bones and provoke an inflammatory response that is further causing osteomyelitis. Pathoanatomically, fractures of the femoral head are usually discovered.

(تكون مواد صديدية على الصدر)



30. 31. some cases of *E. coli* septicaemia, accumulation of exudate between the superficial and deep pectoral muscles is observed.

(التهاب فقرات العنق)



32. The lesions that develop in the articular spaces of thoracolumbar vertebrae result in

spondylitis (spondylosis) and after that, in progressive paresis and paralysis.

(Hjarre's disease) (تكون حبيبات على جدار الامعاء)



33. Coligranuloma (Hjarre's disease). It is characterized by multiple granulomas in the intestinal tract, the mesentery and the liver, but not in spleen. The lesions are similar to these observed in tuberculosis.

(التهابات في عظمة القص مع تكون ارتشاح أوديومي)





34. 35. . Bursitis sternalis (inflammation of the sternal bursa). The bursa is enlarged in a various extent and filled with inflammatory exudate. The diagnosis of coli - infections is based on isolation and typization of pathogenic E. coli serotypes. Many other bacteria (salmonellae, pasteurellae, staphylococci etc.), viruses, chlamydiae and mycoplasmae should be excluded as possible aetiological agents. The prevention should aim at minimizing the probability of faecal contamination of eggs. This implies the maintenance of clean nests, discarding floor eggs and removal of eggs that are cracked or contaminated with faeces. Breeder eggs should be fumigated or disinfected in the farm prior to their transportation in the storage premise. The treatment is effective if initiated soon after testing the antibacterial sensitivity of isolates.

المصدر :- دليل أمراض الدواجن شركة سيف

(جروب أمراض الدواجن وكيفية الوقاية منها)

الشرح والتعليق :- د/السيد صبحي موسى

طبيب أمراض الدواجن والأرانب

<https://www.facebook.com/groups/Poultry.Diseases/>