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CONCLUSION

Antibiotics will continue to be used extensively for treatment of bacterial infections in poultry. The expected problems can arise from actual use of antibiotics from established protocol.

Drugs from a variety of use may enter the food supply in an unacceptable level leading to presence of residues in eggs and consequent egg-products. Nowadays many countries have responded to the problem of residues by enacting laws regulating the use of drugs in poultry industries. Also programs have been reported to minimize the probable and acceptable human intake of potentially harmful chemical substances in foods. These programs encourage the concept of regulatory principles of residues control and tolerance of drugs and chemicals.

Therefore, to safe eggs and poultry products from being contaminated with antibiotic residues and to safeguard consumers from the major problems of acute exposure to antibiotic residues particularly in the developing countries. So, the following suggestions should be adopted:

1- Establishing the regulatory authority, which is responsible for implanting inspection programs and laboratory analysis.

2- Poultry farms should be subjected to strict veterinary control to follow up the correct use of antibiotics.

3- Veterinarians might be careful in prescribing any antibiotic as there are many rules for the selection of certain drugs, putting in considerations,

public health importance of the drug residues as toxicity, carcinogenic effect, development of drug resistant bacteria, drug compatibility and interaction. Also, synergism effect of the antibiotic on the normal flora, risk of such antibiotic on poultry and immunosuppression.

4- Proper using of antibiotics by:

a- Good diagnosis of the diseases by experienced veterinarians.

b- Using sensitivity test for choosing the specific antibiotics should be carried out.

c- Not exceeding the proper recommending doses.

5- Continuous regular monitoring of eggs by means of suitable methods of analysis for determining the status of residues.

6- Eggs produced in poultry farm during the treatment with antibiotics or during their withdrawal times must be condemn.

7- Educational and teaching programs in the attractive information media to increase the awareness of the public about the risk of drug residues in food.

8- Developing an educational programs for poultry producers, distributors and veterinarians providing instruction in the proper use of antibiotics, encouraging the use of preventive measure to reduce the occurrence of residues in eggs and egg-products, and having enough detailed

informations about antibiotic residues from public health and economic points.

9- Regulatory agencies to identify and confirm the identity and quantity of antibiotics present.

10- Application of HACCP system in poultry production and industries.

In conclusion, it seems necessary that concerned authorities should impose regulation and take active part in controlling the problem of antibiotic residues emerged from the intensive use of antibiotics in poultry production and industries practices to protect our environment and health from the danger of such antibiotic residues.

SUMMARY

A total of 150 samples (50 each of brown, white shelled and double yolk eggs) in addition to 50 samples of balady eggs (25 each from markets and farmers) were collected from different localities in Sharkia governorate.

Out of 50 brown shelled egg samples examined, antibiotic residues were detected in 30 samples (60%) while in white shelled 34 (68%) were contained antibiotic residues. In double yolk egg, out of 50 samples 34 (68%), the residues of antibiotic could be detected.

Antibiotic residues were detected in 4 (16%) of Balady eggs collected from farmers and 8 (32%) of Balady eggs collected from markets.

Antibiotic residues were detected in 5 samples (50%) out of 10 imported egg powder samples.

The withdrawal period of three common preparations of antibiotics used for treatment of hens were studied.

Oral administration of amoxycillin (20 mg/kg b.w.) for 3 days to laying hens resulting in presence of residues in eggs for up to 5 days in albumin and 6 days in yolk, by using microbiological assay. Also oral administration of ciprofloxacin (10 mg/kg b.w.) for 3 days to laying hens

leading to presence of its residues for up to 6 days in albumin and 7 days in yolk. While after intramuscular injection of gentamicin (2 mg/kg b.w.) for 3 days to laying hens, residues could be detected in albumin and yolk for up to 14 and 16 days respectively by using microbiological assay method. The precautions for controlling antibiotic residues in hens eggs were suggested..