POST-MORTEM ASSESSMENT OF REPRODUCTIVE STATUS AND INCIDENCE OF GROSS GENITAL ABNORMALITIES OF DOES AND EWES SLAUGHTERED AT DOGARAWA SLAUGHTER SLAB, ZARIA

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ABSTRACT
The aim of this study is to determine the reproductive status and gross genital abnormalities of ewes and does slaughtered at Dogarawa Slaughter slab during post-mortem examinations. Data were collected for 2 months. The cyclicity status of doe and ewe slaughtered at Dogarawa slaughter slab revealed tremendous increase of non-cycling doe and ewe of 82.5% and 85.5% respectively relative to cycling doe of 17.2% and 14.5% in ewes. This study revealed a 2.8% overall prevalence of pathological abnormalities with the uterus (75%) exhibiting the highest level of frequency relative to the Ovary (25%). It is recommended therefore, that antemortem inspection be conducted to identify female animals for restriction or advice against their slaughter. Legislation prohibiting the slaughter of female animals should be enforced. Government agency, Cooperative or NGOs could organize the purchase of potentially healthy female animals for rearing.
Key words: Post mortem, slaughter, does, genital abnormality, cyclicity

INTRODUCTION
As Global population continue to increase, the demand for animal protein source becomes increasingly high, and hence the need for proper livestock production and management. The increasing number in population of Nigeria, demands for increased animal protein production and supply. Ideally, animals sold for slaughter should be mainly males and reproductively inactive females (Opara et al. 2006; Abdulkadir et al. 2008; Cudworth 2008; Riehn et al. 2010). However, cases of indiscriminate slaughter of Ewes and Does is rampant in many developing countries like Nigeria (Abdulkadir et al. 2008). This practice is uneconomical and retards the livestock industry and against animal welfare (Lawal-Adebowale, 2012). While animals are mainly sacrificed for daily meals or occasionally for rituals, religious festivals, ceremonies, drug formulations, disease control or to meet immediate financial needs (Gregory and Grandin 2007; Cadmus and Adesokan, 2010; Fayemi and Muchenje, 2012), others are slaughtered as a result of reproductive pathologies resulting to infertility. Improper ante-mortem examination has resulted to high incidence of slaughtered pregnant animals, immature, and reproductively active females (Nwakpu *et al*., 2007). This indiscriminate practice contradicts the Nigerian Meat Inspection Act of 1968 that prohibits the slaughter of female and/or pregnant animals for meat in Nigeria. Therefore, the objectives of this study are to determine the reproductive status of Ewes and Does slaughtered at Dogarawa Slaughter slap Sabon-gari local government, Zaria, Kaduna state, Nigeria, to identify gross lesions or reproductive abnormalities in Ewes and Does during post-mortem examinations in abattoir.

MATERIALS AND METHODS
Duration and Study Area
The study was carried out at Dogarawa Slaughter slab located in Sabon-gari Local Government, Zaria, Kaduna State adjacent to the local government secretariat Sabon-gari, Zaria, lying between latitudes 11^{o}06N and 11^{o}11N and between longitudes 7^{o}4E and 7^{o}7E. The research was conducted over a period of sixty (60) days between the months of September and October, 2019.
Research Population
Goats and Sheep are the animals used for the study. Emphasis was laid strictly on reproductive status and incidence of gross pathological abnormalities affecting the reproductive organs of Does and Ewes breeds slaughtered at the abattoir. These breeds of Sheep include Balami, Yankasa, Uda and West African Dwarf while that of Goats includes Kano brown, Sokoto Red, Sahel/ Borno White and West African Dwarf.

Research Methodology

Early visit to Dogarawa Slaughter slab was carried out from 6:00 – 10:00am regularly for over a period of 2 months. Systematic examination of the female reproductive organs which includes the ovaries, uterine horns (fallopian tubes), cervix and uterus were critically evaluated by visual examination, palpation and incision. Lesion seen were described by their size, consistency, colour, shape and location.

The pathologies considered in this research was based on the presence or absence of signs of inflammation on the uterus (metritis) or the vagina (vaginitis) and signs of abnormal swelling which may contain tumor, pus or fluid as the case may be. The absence of follicles or corpus luteum on the ovary in the presence of corpus albicans which may indicates ovarian inactivity in ewes and does that had previously conceived. This condition is clinically known as anestrus. Undeveloped uteri and ovaries, common mostly in ewe lamb or doe kid will also have inactive ovaries.

Data Analysis

Records obtained from the Abattoir were analyzed using simple descriptive and quantitative statistical analysis comprising of percentages and tables so as to determine percentage assessment of reproductive status and incidence of Gross genital abnormalities.

Results

Table 1: Mean (Percentages) of slaughter at dogarawa slaughter slap

	No. of animals	Percentage (%)
Goat		
Male Animals (Bucks)	1222	78.2
Female Animals (Does)	151	9.7
Sheep		
Male Animals (Rams)	59	3.8
Female Animals (Ewes)	131	8.3
Total	**1563**	**100**

Table 2: Ovarian structure of Doe and Ewe slaughtered at Dogarawa slaughter slab

S/N	No. of animals	Percentage (%)
Goat		
Graffian follicles	19	12.6
Corpus luteum	7	4.6
Sheep		
Graffian follicles	08	6.1
Corpus luteum	11	8.4

Table 3: Cyclicity status of Doe and Ewe slaughtered at Dogarawa slaughter slab

S/N	Frequency	Percentage (%)
Goat (doe)		
Cycling	26	17.2
Non-cycling	125	82.8
Sheep (ewe)		
Cycling	19	14.5
Non-cycling	112	85.5

Table 4: Prevalence of pathological abnormalities of Doe and Ewe slaughtered at Dogarawa slaughter slab

Nature of Abnormalities	Frequency	Percentage (%)
Hydrometra	**3**	**37.5**
Pyometra	1	12.5
Uterine atrophy	1	12.5
Endometritis	1	12.5
Follicular cyst	2	25
Total	**8**	**100**

Discussion

The proportion of Doe (9.7%) slaughtered is relatively higher to ewe (8.3%) but, however, lower than the 57.9% does and 61.4% ewes as reported by Sanusi *et al.* (2006). This can probably be related to increase awareness of prohibition of slaughter of reproductively intact female animals and also to social and community crisis that makes does and ewes as an easy and multiple way of savings. The incidence of cyclicity status revealed tremendous increase of non-cycling doe and ewe of 82.5% and 85.5% respectively relative to cycling doe of 17.2% and 14.5% in ewes. The overwhelming increase in slaughter of non-cycling animals may be attributed to slaughtering of premature females as seen during sampling. 2.8% overall prevalence of pathological abnormalities which consisted of hydrometra, uterine atrophy, pyometra, endometritis and follicular cyst was observed. The result observed is contrary to the findings of Agarwal et al., (2015) who reported a prevalence of 7.11% and 8.08% uterine abnormalities in sheep and goats, respectively. Uterus exhibited the highest level of frequency and diversity of pathological lesion with overall incidence of 75% (6/8). Six (6) out of 282 females examined had uterine infections; 3 hydrometra, 1 pyometra, 1 endometritis and 1 uterine atrophy.

CONCLUSSION AND RECOMMENDATIONS

Present study revealed a prevalence of 2.8% for female reproductive organ/tract abnormalities, 97.2% of which have a direct negative effect on fertility thereby presenting a problem to growth of sheep and goat production. It was concluded that majority of female animals slaughtered at Dogarawa slaughter slab are usually non-cycling which was probably attributed to slaughter of premature female animals. It was also concluded that slaughtering of female animals is majorly attributed to immediate financial needs of animal owners. It is therefore recommended that antemortem inspection should be conducted to identify female animals for restriction or advice against their slaughter. Cooperative organizations or NGOs could organize the purchase of potentially healthy female animals for rearing and empower their members (widows and young) with skill in livestock production which create employment and enhance income generation.

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