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Animal birth control programme employed in Gadag- Betageri municipality

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Abstract

The Animal Birth Control (ABC) programme conducted in Gadag and Betageri municipality in collaboration with Animal Rights Fund (ARF), Bangalore, from 01.11.2024 to 20.03.2025, aimed to address the alarming overpopulation of stray dogs. With around 4000 stray dogs across 31 wards, the initiative focused on humane sterilization, rabies vaccination, and community awareness to promote animal welfare and public safety. An operation theatre was established near the Solid Waste Management Yard in Gadag, and professional dog catchers facilitated safe transportation. Standardized surgical protocols were followed for both male and female dogs, along with post-operative care and identification via ear notching. The program not only curbed uncontrolled breeding and improved the quality of life for stray animals but also mitigated public health risks, particularly the spread of rabies. This comprehensive and collaborative effort stands as a model for sustainable stray dog population management in urban settings.

Keywords: Gadag-Betageri municipality, control programme, mitigated public health risks

Introduction

For the well-being of humans and animals, ABC is a crucial measure. Due to over reproduction of stray dogs and cats has resulted in overpopulation that are living in very unhygienic conditions, lack of feed, and frequently undergo abuse.

This uncontrolled rise in the stray population of dogs has posed many risks to the well-being of humans and animals besides the risk of spreading diseases like rabies and other parasitic infestations affecting the quality of life of these dogs. Practicing ABC helps to maintain the balance the stray dogs thereby improving the quality of life. It is becoming a social responsibility among the public to ensure a better tomorrow for dogs and humans in the Gadag district.

In Gadag and Betageri municipality, ABC programme was under taken in collaboration with Animal Rights Fund Bangalore (Recognized by Animal Welfare Board of India) during the period from 01.11.2024 to 20.03.2025 for a period of 5 months. The Primary aim of the Animal Birth control (ABC) program is to control the population of stray dogs in particular. It not only reduced the number of stray dogs by preventing uncontrolled breeding at the same time it helped these dogs to enhance quality of life by preventing the unnecessary suffering caused by overpopulation, disease and malnutrition. Apart from that, it also helped to enhance the public safety and prevented the risk of zoonotic diseases getting transmitted among the animals and humans, such as fatal Rabies and other parasitic diseases.

Strategy Employed

Gadag and Betageri municipality area comprises of 31 wards with approximately 4000 stray dogs. These dogs not only pose significant threat to humans but also to the domesticated animals also. It was planned to exhibit the ABC progname in the well-organized way so as to minimize the risk of affecting the natural co system.

In the initial phase, well equipped Operation theatre was set up as per the standard designs away from public area near to Solid Waste management Yard, GBMC, Gadag. For transportation of dogs and dog catching trained professionals are provided by ARF Bangalore. It was planned to execute the programme in all wards starting from peripheral areas and gradually extending to the wards situated in the centre of the Gadag and Betageri.

Strategies involved for important steps, sterilization, vaccination, community awareness and collaboration with local NGO's.

- **Sterilization:** The priority of the ABC program is the sterilize the stray dogs. This prevents the birth of unwanted litters and indirectly controlling the over population. Sterilization process itself is a humane method and not involving euthanasia, but instead focuses on preventing future breeding.
- **Vaccination:** Vaccinating stray dogs, particularly against rabies, is essential from the public health point of view. This programme emphasizes immunization to prevent the spread of this deadly disease. Vaccination also contributes for the overall health and well-being of the animals and reducing the likelihood of illness in the population.
- **Community Involvement:** The ABC program encouraged public participation by educating local communities about responsible pet ownership. This helps create a more informed and compassionate society, reducing the number of stray animals over time.
- **Collaboration with Local Authorities and NGOs:** ABC program requires collaboration between local government bodies, animal welfare organizations and the community. Working together ensures proper resources, coordination and sustained efforts to tackle the issue of stray dog's overpopulation.

Situation before the Initiation of the Animal Birth Control (ABC) Program: In Gadag and Betageri, one of the most visible issues was overpopulation of stray dogs. Without neutering, these dogs tend to increase the population rapidly

year to year rapidly and many dogs struggle to survive and lack access to food and clean water, and moreover to shelter. Many a time these stray dogs were exposed to Gadag's harsh temperature and humidity over and above starvation, external parasitic infestation posing the risk of spreading the disease. These dogs in some wards tend to be more aggressive and live in inhumane conditions which poses a significant risk for people travelling with two-wheelers by way of road accidents. The public and media frequently expressed their concerns about containing these overpopulated stray dogs as many biting incidences were reported. It become essential for administrators and politicians to address human safety issues on a priority basis as recently one rabies case was also documented in person hailing from the Gadag district. Children are particularly vulnerable as the highest number of dog biting cases reported from Gadag itself. Apart from the above, there was a low level of awareness among the public with respect to the vaccination. The stray dogs also created sanitation and environmental problems by dragging out the garbage and waste all over the streets. In Gadag, there are a very limited number of animal shelters available with limited capacity. In view of the situation there was a public outcry, suffering, significant health risks, and community tensions were noticed in GBMC.

Technical procedure employed for ABC Programme:

Gadag and Betageri municipality area comprises 31 wards with approximately 4000 stray dogs from where these dogs were picked up and brought to the ABC unit. The details of the dogs from these wards are given in Table 1 below

Street dogs were picked up and released in the early morning hours to avoid heat and undue stress to the animals. Large, deep, 2-ply polypropylene nets of about 5 feet in depth and 3 feet in diameter, secured to circular metal (preferably made of a light alloy) rims, and attached to long handles were used to scoop up the dogs. The street dogs were then caught inside the net by twisting the mouth of the net (Krishna 2010). Once these dogs were securely placed inside the net, the pole was used to carry these dogs in the net. Dogs were then gently placed into the dog-catching van.



Catching and transportation of dogs



Female Sterilization



V-shaped notching for identification

The dog van had a closed body with windows (fitted with grills) on both sides for ventilation with two separate compartments, i.e. the driver's compartment and the street dog holding compartment.

Technique employed for male sterilization

In preparation for surgery, the canines were anesthetized using an intravenous combination of Atropine sodium (0.045 mg/kg) subcutaneously, and Xylazine (5 mg/kg) administered intramuscularly, along with thiopental sodium (12.5 mg/kg) intravenous (Jackman & Rowan 2007) [2]. To ensure analgesia, a subcutaneous injection of meloxicam (0.4 mg/kg) was administered preoperatively. The surgical region, encompassing both the scrotum and prescrotal area, was meticulously clipped and cleansed with a chlorhexidine scrub. A sterile, chlorhexidine-soaked sponge was then applied to the area. Subsequently, the patient was transferred to the operating suite and positioned in dorsal recumbency. The preparatory sponge was removed, and the surgical field was aseptically draped. Notably, the surgical preparation was consistent across both techniques employed (Pratap *et al.*, 2011) [3].

Prescrotal incision approach, a No. 15 scalpel blade affixed to a No 2 Bard-Parker handle was utilized to create a skin incision commencing just cranial to the scrotum, extending cranially for 2 to 5 cm, contingent upon the dog's size, to facilitate exteriorization of the testes. The parietal tunic remained intact throughout. Each testicle was sequentially delivered through the prescrotal incision, with fascial tissues meticulously stripped from the spermatic cord to allow complete exteriorization, adhering to a closed castration methodology. Two curved Kelly hemostats were employed to crush the spermatic cord tissues proximal to the testicle. Transection of the spermatic cord was performed distal to the second hemostat using a No. 15 scalpel blade. The proximal hemostat was then removed, and a 2-0 polyglactin 910 (Vicryl-Ethicon) suture was secured with a Miller's knot at the site previously compressed by the hemostat. Following removal of the remaining hemostat, the residual spermatic cord was repositioned into the incision after ensuring hemostasis. This procedure was replicated for the contralateral testicle. Closure of the incision was achieved using 2-0 polyglactin 910 suture in an interrupted intradermal pattern.

Technique employed for female sterilization

In preparation for surgery, canines were anesthetized using an intravenous combination of Atropine sodium (0.045 mg/kg) subcutaneously and Xylazine (5 mg/kg) administered intramuscularly, along with thiopental sodium (12.5 mg/kg) intravenous. The dog is positioned in dorsal recumbency, and the surgical area, extending from the xiphoid to the pubis, is clipped, scrubbed with an antiseptic solution, and draped aseptically. A ventral midline incision is made just caudal to the umbilicus, extending 2-5 cm depending on the size of the patient. The abdominal cavity is accessed by incising the *linea alba*, and a spay hook is used to exteriorize the uterine horn, leading to identification of the ovary. The suspensory ligament is carefully stretched or bluntly broken down to improve exposure. Using a modified three-clamp technique, the ovarian pedicle is clamped, ligated with absorbable suture (polyglactin 910 or polydioxanone), and transected, ensuring hemostasis before returning it to the abdomen. The procedure is then repeated on the contralateral ovary. Following this, the uterine body is identified cranial to the cervix, clamped, and ligated using a Miller's knot or transfixing suture, ensuring secure closure before transecting. After confirming hemostasis and inspecting the abdominal cavity for bleeding, the incision is closed in three layers: the *linea Alba* with simple interrupted or continuous sutures, the subcutaneous tissue to reduce dead space, and the skin using either intradermal sutures, simple interrupted sutures, or tissue adhesive. Postoperatively, the patient is closely monitored for pain, hypothermia, or bleeding, and activity is restricted for 10-14 days to prevent complications such as dehiscence. Pain management with opioids and NSAIDs continues for several days, and suture removal (if non-absorbable sutures are used) is performed at 10-14 days. Possible complications include hemorrhage, infection, dehiscence, or ovarian remnant syndrome if ovarian tissue is inadvertently left behind. With proper surgical technique and postoperative care, OVH is a safe and effective procedure for population control and disease prevention in dogs Reece *et al.* (2013) [5].

Identification technique employed

A permanent method of identifying dogs is vital to prevent the same animal from being caught and subjected to surgery twice. This is especially essential with the female street dogs as no outward sign of the sterilization surgery will be visible once the animal has recovered fully and the coat has re-

grown. All sterilized and vaccinated dogs, irrespective of their gender are to be compulsorily ear-notched with a visible 'V' cut on the pinna of the right ear on the dorsal margin, immediately after surgery by using an electric cauterizer for easy identification of the sterilized dogs after surgery as per the methods prescribed by the Welfare for street dogs. The size of the 'V' was small, and sufficient only to identify the sterilization status of a dog from a distance. The length of both arms of 'V' should be 20 to 25% of the total length of the ear. Ear notches had to be visible but not too large to affect the anatomy of the pinna. The notched ear received daily antiseptic dressing.

Relocation of animals

The anti-rabies vaccine was administered on the day of release while deworming medications were administered on the first day when dogs were caught (Reece 2007) [4]. Only dogs identified by a Veterinary surgeon as fit for release were relocated. It is imperative that dogs are released back to the exact location from where they were picked up. Care was taken to ensure the correct identification of dogs and addresses. In the event of severely inclement weather, the release of the dogs was postponed till more favorable weather prevailed. A representative of the ABC Implementing Agency always accompanied the dog-releasing team and was present during the release to ensure the correct place of relocation.

Table 1: Distribution of animal bite cases by sex across wards in the study area

Ward	Males	Females	Total
Ward no 1	7	14	21
Ward no 2	9	8	17
Ward no 3	4	8	12
Ward no 4	5	10	15
Ward no 5	8	6	14
Ward no 6	5	6	11
Ward no 7	12	13	25
Ward no 8	5	5	10
Ward no 9	6	7	13
Ward no 10	6	5	11
Ward no 11	5	6	11
Ward no 12	6	9	15
Ward no 13	6	10	16
Ward no 14	8	10	18
Ward no 15	4	9	13
Ward no 16	11	8	19
Ward no 17	10	12	22
Ward no 18	8	8	16
Ward no 19	8	9	17
Ward no 20	3	9	12
Ward no 21	5	11	16
Ward no 22	6	11	17
Ward no 23	7	7	14
Ward no 24	4	18	22
Ward no 25	15	10	25
Ward no 26	5	7	12
Ward no 27	6	5	11
Ward no 28	5	5	10
Ward no 29	8	8	16
Ward no 30	5	9	14
Ward no 31	8	12	20
Total	188	297	485

Conclusion

The successful implementation of the ABC programme in Gadag and Betageri municipal areas demonstrates the effectiveness of a systematic, humane, and collaborative

approach to stray dog population control. By combining sterilization, vaccination, and public education, the program significantly reduced the risks associated with overpopulation, such as disease transmission, aggression, and accidents. The involvement of local authorities, NGOs, and trained professionals ensured smooth execution and long-term sustainability. Beyond animal welfare, the programme played a crucial role in safeguarding community health and fostering a more compassionate environment. Continued efforts, including regular follow-ups and expanded community involvement, will be essential to sustain these achievements and ensure a harmonious coexistence between humans and stray animals.

Conflict of Interest

Not available

Financial Support

Not available

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