CHROMOSOME PREPARATION IN MICE

1. CHOLICHICINE ADMINISTRATION:
   1. Inject 0.05 % Cholichicin Intraperitoneally (0.10-0.12 ml/ 10gm of body weight). 0.5ML
2. CELL SUSPENSION PREPARATION
   1. After 90 – 120 min. start to kill the mouse and isolate the femurs.
   2. clean the mouse’s femurs, cut both ends and flush the bone marrow by 3-4 ml physiological saline ( 0.9 % NaCl), mix thoroughly by pipette to make cell suspension.
3. SWELLING THE CELLS:
   1. Centrifuge the cell suspension at 1000 rpm for 5-7 min. then remove the supernatant carefully.
   2. Add 4-6 ml prewarmed (at 37’C) hypotonic solution (0.56% or 0.75 molar KCl), mix gently.
   3. Incubate the cell suspension at 37’C for 20-25 min. then mix them carefully.[[1]](#footnote-1)
4. FIX THE PREPARATION:
   1. After incubation, centrifuge the cell preparation at 1000 rpm for 5-7 min. Then remove the supernatant carefully keeping the pellet.
   2. Fix the cells in a fixative composed of 3:1 absolute methanol: glacial acetic acid. The fixative should added very carefully by dropping it on the wall of the tube not directly on the cell. Gently mix the preparation.
   3. Keep them at room temperature for 10-15 min.
   4. Make centrifugation then remove the fixative.
   5. Repeat the same procedure two or three times.
   6. You can keep the preparation at refrigerator at this stage.
   7. Prepare clean slide with 70% cold alcohol.
   8. Drop the cell preparation on the slides carefully; expose them to the gentle flame.
   9. Keep the slides for 5-7 days to dry before staining.
   10. Slides can be stained with 10% Geimsa’s Stain prepared in phosphate buffer pH-6.8

1. [↑](#footnote-ref-1)