Robotic Cataract Surgery Breakthrough

Where & When:

- Performed at the Army Hospital Research & Referral (AHRR), Delhi Cantonment.
- This marks the first-ever robotic custom laser cataract surgery in a government hospital in India.
- The procedure used the advanced ALLY Adaptive Cataract Treatment System.

• Significance:

- India is now the second country in South Asia where this robotic cataract surgery has been performed in a government setup.
- Represents a major technological leap in ophthalmic surgery, especially within the public healthcare system.
- Will benefit defence personnel, veterans, and their families who depend on AHRR for tertiary care.

Technology Details:

- The ALLY system combines femtosecond laser precision with advanced robotic guidance.
- Customizes treatment for each patient based on eye measurements.
- Reduces dependency on manual incisions and phacoemulsification.
- Results in improved precision, reduced surgical trauma, faster recovery, and better refractive outcomes.

Patient Benefits:

- Faster post-surgery rehabilitation.
- Improved visual outcomes compared to conventional cataract surgery.
- Potential reduction in complications, especially for patients with complex cataract profiles.
- Enhanced safety for elderly and high-risk patients.

Wider Context in India:

- Cataract is the leading cause of blindness in India, contributing to over 60% of avoidable blindness cases.
- While phacoemulsification remains the standard, robotic laser cataract surgery is a step towards next-gen precision eye care.
- Integration into government hospitals may pave the way for wider public access, beyond private high-end eye centres.

• Future Scope:

- AHRR will serve as a training hub for military ophthalmologists.
- If successful, the technology may be scaled to other AIIMS and major government hospitals.
- Possibility of inclusion under Ayushman Bharat or defence healthcare coverage to expand affordability.

← This development places India at the forefront of ophthalmic robotics in South Asia, with potential long-term impact on both public healthcare accessibility and global recognition of Indian medical innovation.