

ERCP in the elderly: handle with care

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Bibliography

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“That is the greatest fallacy: the wisdom of old men. They do not grow wise. They grow more careful.”

Ernest Hemingway,
A Farewell to Arms, 1929

ERCP had its beginnings in the mid-1960s, so we are approaching its 50th anniversary. Certainly middle-age by most definitions, and perhaps knocking at the door of “elderly”? I like to think that ERCP has matured, seasoned – like a fine wine – by the years and having reached a state of responsible adulthood. As a young lieutenant in the ERCP forces 30 years ago, I well recall many fine skirmishes – and even full-scale battles – fought between true believers over such seemingly mundane issues as in patient versus outpatient procedures, cutting versus coagulating current for sphincterotomy, plastic versus metal mesh stenting, biopsies versus brushings for bile duct tumors, etc. etc. Looking back on it all, I marvel at how desperately we cared about minutiae while often missing the “big picture”. A colleague recently offered me a surprising opinion: that all of the significant discoveries and inventions relating to ERCP have already taken place, and that the discipline is likely to settle into a comfortable old age, if not a senescent decline, throughout the coming decade. This immediately brought to mind the famous quote attributed to Charles H Duell, Commissioner of the US Patent Office, who lobbied in 1899 for the closure of his department, opining that “everything that can be invented has been invented”. (It is not clear that Mr Duell ever really said this, but it has been widely attributed to him over the years). The comment got me thinking: have we really reached the pinnacle of ERCP excellence? Is this all there is? Should I hang up my duodenoscope and head home? I would like to offer a contrary opinion, that we have only just begun to explore the possibilities and limitations of ERCP from the vantage point of a finally mature specialty.

When I received the request to review the Day et al. paper [1], in my angst – I confess – I toyed with clicking on the “Unable” button, but my sense of duty to provide a balanced and dispassionate expert opinion overrode my “fight or flight” reaction. Was I justified in my hope that this study would be different from the rest? Did it take “ERCP in the Elderly” to a higher level? Did it change my practice? Yes and No. With all due respect to the editor of this journal and many others, I may scream if asked to review another paper on “ERCP in Old Age”. Every major gastroenterology meeting attracts a raft of abstracts on this theme, typically “ERCP is safe and effective in 100 year olds”. Many of these abstracts make their way to journal offices in manuscript form, chasing hapless reviewers for whom there is apparently no hiding place. The vast majority of these studies are retrospective data trawls, with all of the biases and omissions and meaningless statistics that accompany this popular pursuit. Those of us who have been in the “game” a long time know that most old people tolerate ERCP better than young ones, usually with fewer complications. Why would we want to be repeatedly reminded of this? I have to confess to depression when I was invited to review yet another “ERCP in the Elderly” study for this journal. The paper by Day et al. [1] in this issue of Endoscopy International Open is the result of a huge retrospective review of the literature in English on ERCP performed in elderly patients. It is a highly selective review, because less than 1% of the papers and abstracts reviewed (69/7429) were deemed suitable for systemic review and meta-analysis. The vast majority of the too many studies in our literature on this topic lack important data, without which making any useful conclusion is virtually impossible. Even using the “best data” available, the authors were hampered by lack of control groups, data on outcomes, even whether studies were diagnostic or therapeutic. They looked for

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complications of ERCP, specifically perforation, pancreatitis, bleeding, cholangitis, cardiopulmonary adverse events and death in three cohorts, the >65 year olds, the octogenarians (those in their 80s) and nonagenarians (those 90 and older). They found that older patients got less post-ERCP pancreatitis than younger ones, which is most of us think we know from experience, but also that pancreatitis is not the commonest complication of ERCP in the elderly. Bleeding, cardiopulmonary adverse events and death were all increased in patients over 80 years of age (and especially over 90). This should not come as a surprise to us. Take bleeding: potent anticoagulants (especially anti-platelet agents) are used with great enthusiasm (and sometimes abandon) in the elderly. Most of us have to address anticoagulation issues in our daily practice. You may biopsy with impunity when a patient is on clopidogrel (Plavix™, Bristol Myers-Squibb), but think twice before performing endoscopic sphincterotomy. Elderly patients coming to ERCP are more likely to have cardiovascular comorbidities than younger patients, so complications such as myocardial infarction, stroke, congestive heart failure, hypoxemia, bradycardias and tachycardias are to be expected. Just when we thought the elderly were “bulletproof”, they turn out to have “feet of clay”!

In my humble opinion, one of the great advances in ERCP has been the adoption of anesthesia as standard for these prolonged procedures. We can argue all day about who should be providing the drugs, ranging from propofol (Diprivan™, Astra Zeneka) to inhalational (general) anesthesia, but the truth is that elderly patients evaluated and managed by experienced providers do better than those who receive moderate (intravenous) sedation with fentanyl and midazolam. The Day study reminds us that while outwardly sturdy, the elderly are more vulnerable than younger patients due to age-related comorbidities (often cardiovascular) during prolonged procedures requiring sedation.

I recall being angry and dismayed when an anesthesiologist told me a few years ago that my clinic notes on an old gentleman about to undergo ERCP were “absolutely useless” to him. He wanted to know relevant details for anesthesia like the patient's American Society of Anesthesiologists (ASA) category, cigarette smoking history and exercise stress test results. He did not care what the serum amylase or liver function tests or ammonia level were. Many of us ERCP types suited up to fight Anesthesia Wars in the last decade. Everyone's experience was different, I suppose, but mine left me with a growing appreciation of the role of anesthesiologists and their “extenders” in managing frail elderly patients undergoing therapeutic ERCP. In my “second childhood” of ERCP practice, I take much greater care than I ever did in the past to ensure that elderly patients will survive their procedures,

and benefit from them. We should never rush into procedures, but especially not ERCP. We should resist the temptation to perform futile interventions in terminally ill patients with advanced malignancies. This is easier said than done, because the pressure from relatives for one more heroic procedure can be difficult to resist. Elderly patients with myocardial infarction, heart failure, stroke and dysrhythmias are all at increased risk from anesthesia and prolonged procedures. If the patient was admitted with obstructive jaundice, then had chest pain with elevated serum troponin levels overnight, take the time to thoroughly evaluate his or her cardiac status before charging ahead with ERCP. This is what cardiologists are for! Similarly, patients with bad lungs and poorly-controlled diabetes mellitus will benefit from review by the relevant specialists. With the current epidemic of metabolic syndrome, morbidly obese patients – even young ones – need special attention, too. Almost by definition, they have sleep apnea and are more prone than the non-obese to respiratory depression by anesthetic agents. The list goes on and on, but my point is made, I think: the elderly are more likely than younger patients to have comorbidities at the time of ERCP, and therefore need special handling.

If the Day study acts as a wake-up call to those who have not yet made the important connection between old age and risk from ERCP, then it has done its job. Too many of our so-called advanced endoscopy programs are still churning out technicians hell-bent on the next procedure, with little thought for patient risk. Every time an ERCP endoscopist realizes that the true “trick” of ERCP is the management of risk, and not just cannulating the duodenal papilla, then our specialty takes a step forward. The authors of the Day study are to be congratulated on their perseverance in seeing this study to its conclusion. But even they admit that there were problems with even the “best” data they identified. Please, let this be the last big retrospective study published on this topic! In 2014, well-organized prospective studies are the only way forward. With the benefit of hindsight, Dr Duell was way off the mark, and I think my colleague was, too: ERCP has a healthy future in which we will study our interventions and use the outcomes to make it safe and effective for everyone, not just the 100 year olds!

Competing interests: None

References

- 1 Day LW, Lin L, Somsouk M. Adverse events in older patients undergoing ERCP: a systematic review and meta-analysis. *Endoscopy International Open* 2014; 2: E28 – E36